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Xerox® CentreWare® Web Evaluation Guide

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1. How to Use This Guide

This guide is designed to assist in evaluating the CentreWare® Web (CWW) software product for use in a network operating environment. It uses a combination of high-level feature descriptions, representative screen images, examples of feature usage and specific sequences to perform the evaluation.

Intended Audience

It is expected that this guide is used by a client evaluation team during installation of CWW. In order to get the most from this guide, the readers should have an understanding of:

- The printer environment at the site where CWW is to be installed
- Network topology – routing configuration, addresses and subnets in the environment
- The Windows® operating system on which CWW is to be installed
- The basic functionality of SNMP-based monitoring of network devices

By reading the guide, the evaluator will become familiar with the features and capabilities of CentreWare Web. Working through these sections, the evaluator is provided with a series of exercises that can be used to evaluate CWW.

Nomenclature Used in This Guide

The following nomenclature is used when describing functions, examples or tests used in this guide.

- **Page**: Refers to the currently displayed Web-browser window for CentreWare® Web. Functions in CentreWare® Web are grouped by one of the four main functional pages: Printers, Wizards, Reports, and Administration.
- **Tab**: The Tab is the navigation device, displayed along the top of the page, and is the basic mechanism for switching between functions.
- **Pane**: Many pages contain discrete windows associated with specific functions or actions. Some panes contain icons, so you can minimize or expand the contents.
- **Navigation pane**: Each page of CentreWare® Web displays a navigation pane along the left side of the page. In the Printers page, the navigation pane is displayed as a graphic with folder icons representing nodes. The Printers page, also displays text to navigate to the Printers, Queues, or Configuration Sets page. Text is used to navigate between sub-functions of the Wizards, Reports and Administration pages.
- **Data entry field**: Data entry fields allow the user to input variable data into CWW. Data entry fields are rectangular in shape and identified as having a lighter background than the windows in which they are displayed. A field name placed adjacent identifies data entry fields.

Depending upon the page function, user data can be entered via one of the following:

- **Drop-down menu**: A drop-down menu allows the selection from a list of fixed values.
- **Selection box**: A selection box is used to select or deselect specific records or values.

- **Radio buttons**: radio buttons are used when only one of multiple selections can be made for a particular function. radio buttons are small circular icons. Selecting one radio button typically deselects any associated buttons.
- **Action buttons**: action buttons are active icons within a page that direct the browser to another function. Mouse-overs on buttons typically display the function.

Guidelines for This Documentation

- **Navigation guidelines**: In some instances, the evaluator is directed to view pages or activate functions on specific pages. The sequence **Administration > Discovery Methods > Discover Now** button directs the evaluator to first select the Administration page, next select the Discovery Methods page and finally activate the **Discover Now** button.
- **Error information**: If an error is encountered during user interaction (i.e. a mandatory field not filled in, an error in the operation, a prerequisite not met, etc.) the red error icon appears next to the action or data entry field and an error message is posted at the top of the page.
- **Notes** and other information:

Specific Notes or Cautions are indicated in text similar to this, following the text to which they apply.

CentreWare® Web Icons

Icon	Definition
	Printer status up-and-running or action successful
	Warning button: non-critical device status or action produced a warning.
	Error – Attention is required or action failed or status from device is indeterminate.
	Open Printer Web page
	No network connection
	Display Selection, Device Details
	Modify or Change Action
	Unsupported: the device is noncompliant or action is not supported

Acronyms Used in This Guide

Acronym	Definition
AMR	Auto Meter Readings
ASR	Automatic Supplies Replenishment
CWW	Xerox CentreWare® Web print management software
CSV	Comma Separated Value

Acronym	Definition
DNS	Domain Naming System
DocuPrint	A Xerox Printer Family
HTML	Hypertext Markup Language
ICMP	Internet Control Message Protocol
IE	Microsoft Internet Explorer®
IIS	Microsoft® Internet Information Services
IP	Internet Protocol
IPX	Internetwork Packet Exchange
LPR	Line Printer Remote
MB	Megabyte (2^10 kilobytes)
MFD's	Multi-function devices
MHz	10^6 Hertz
MIB	Management Information Base
MTS	Microsoft® Transaction Server
NT	Microsoft Windows NT® 4.x OS
OIDs	Object Interface Definition
OS	Operating System – Microsoft Windows®
PDF	Portable Document Format
Phaser	A Xerox Printer Family
RFC	Request For Comments [Internet]
RPC	Remote Procedure Call
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol

Acronym	Definition
XML	Extensible Markup Language

Recommended Test Sequences

This guide is organized so that some evaluations build on and use prior settings and test results. Xerox recommends that the evaluation steps be followed in the order presented, but if a certain feature(s) is not to be evaluated, please read the prerequisite paragraph in the follow-on sections before proceeding.

During installation, the user is presented with the option to initially discover print devices via the Getting Started Wizard. Xerox recommends that the evaluator allow this wizard to run with **Least Printers** selected, initially. This populates CWW with printers that exist on the local subnet and should provide sufficient devices to perform the evaluation with minimal impact to the IT environment. The Discovery section, after the evaluation sections on Printers, Queues, and Administrative Set-up, can be used to expand the printers under management.

Reference Material

CWW SOFTWARE

A copy of the CWW software is available for download at: http://www.xerox.com/centrewareweb or http://www.xerox.com. Follow the path: **Production Equipment > Software > System Management and Administration > Xerox CentreWare® Web Device Management Software.**

OTHER GUIDES

The CWW Evaluation Guide and Installation Guide are available in Portable Document Format (PDF) format on the Web at http://www.xerox.com/centrewareweb.

HELP SYSTEM

CWW has an online help system that contains information about the features and functions and how to use the application. The link to the help is located on the upper right of the CWW Web pages.

Product Support Information

INTERNET SUPPORT

Xerox maintains an online help system for CWW at http://www.xerox.com by following the path: **Production Equipment > Software > System Management and Administration > Xerox CentreWare Web Device Management Software > Support.**

TELEPHONE SUPPORT

For additional assistance, go to http://www.xerox.com and follow the path **Contact Us > Support** to obtain the telephone number for support in a specific region.

Product Overview

CWW is a real-time control and monitoring application that can discover, install and configure, manage, monitor, and report on any type of SNMP-compliant printing device attached to an IP network, regardless of manufacturer. Operation of CWW is through the Web browser. As such, no client software is required for access to CWW, and any network connected PC capable of running Internet Explorer can be utilized.

The discovery of networked printers can be selected for specific subnets in an enterprise. CWW features a built-in alert detection system, and through customization of alert severity levels, has the capability to send an e-mail message to a specified recipient when user-defined conditions exist in the devices being monitored. CWW provides clear and concise status of all networked printers, with the ability to group printers in a way that best fits the network environment. Printer status conditions can be displayed and configured to meet specific account needs.

With CWW, the administrator can:

- Discover and manage network connected printers
- Install and manage local and remote print queues
- Install Windows® printer drivers for single or multiple printers
- Monitor printers and print servers for status and alert conditions and notify users (via e-mail) when faults occur
- Initiate troubleshooting tests on single or multiple printers and display the results
- Monitor and modify print device properties via Configuration Sets
- Upgrade printer firmware
- Gather and report on printer status and information
- Through its reporting capability, CWW can provide the following information:
  - List of all printers found in the enterprise
  - Report of printers that need attention
  - Summary of print volume across an enterprise, summarized by printer and queue

System Requirements

RECOMMENDED HARDWARE

The hardware recommendation listed below is what would be expected when installing CWW on new equipment in a production server environment, but may not represent the minimum hardware needed. For those requirements, consult the CWW Readme document provided in the CWW installer. It is available during the installation process, by selecting the View Readme button, and is stored in Program Files\Xerox\Xerox CentreWare® Web\Readme.txt.

Hardware Requirement	Recommendations
Processor	Intel® Pentium® 4 processor at 3GHz or Intel® Core™ 2 Duo. AMD equivalent processors are supported as well.
Memory	2 GB of RAM
Server	Separate server with SQL® installed is recommended if: • The number of groups configured for concurrent status polling is greater than 20, and/or • The number of alert profiles is greater than 20, and/or

	• Job data consumption is greater than 100,000/week Note: If you install the application in the Azure Cloud on a supported operating system, you may use Azure SQL database. You may operate Xerox® CentreWare Web off-premise in the Azure Cloud with Azure SQL
Available Disk Space	Minimum: 3GB Recommended: 20GB on 7200 rpm hard drive if collecting historical data on thousands of devices.

Examples: Below are our recommendations for hardware, operating systems, and SQL requirements.

For Installs < 5000 Devices:

- Xerox® CWW on Windows Server 2008R2 with off-box SQL*
  - 2 CPU cores @2.9 GHz
  - 4 GB RAM
  - 40 GB free space (preferably on a non-system disk)
- Xerox® CWW on Windows Server 2008R2 with on-box SQL/SQL Express**
  - 2 CPU cores @2.9 GHz
  - 8 GB RAM
  - 60 GB free space (preferably on a non-system disk)
- Xerox® CWW on Windows Server 2012R2 with off-box SQL*
  - 2 CPU cores @2.9 GHz
  - 12 GB RAM
  - 40 GB free space (preferably on a non-system disk)
- Xerox® CWW on Windows Server 2012R2 with on-box SQL/SQL Express**
  - 2 CPU cores @2.9 GHz
  - 16 GB RAM
  - 60 GB free space (preferably on a non-system disk)

* Use the newest version of SQL acceptable to the customer.

** On-box SQL is only recommended for very small installations (< 200 devices)

For Installs > 5000 devices:

- Use an off-box SQL Server
- Increase memory by 50%
- Add 2 CPU cores

For Installs 10,000 devices:

- One terabyte disk space
- 16 GB RAM
- Quad Core 3.4 GHz processor
- SQL Enterprise on separate server

If running on a virtual system, all resources need to be dedicated to Xerox® CWW.

Note: If you need to install Xerox® CWW on a rack-mounted server, you need a keyboard-video-mouse terminal interface to the server.

VERIFYING SOFTWARE REQUIREMENTS

The following table describes the software requirements for the Xerox® CWW

Software Requirement	Recommendations
Operating Systems	Windows® 2008 x86 and x64 and R2x64 Windows® 10 Windows® Server® 2012 and 2012 R2 Windows® Server® 2016 Note: When installing on Windows Server® 2012, right-click the installer and select Run as Administrator. Note: Xerox® CWW does not support Windows® systems running on a Novell® client, Macintosh®, or non-NTFS partitions. Note: Xerox® CWW does not support installation on a domain controller.
Web Server	Microsoft® Internet Information Services (IIS) 6.0 or above
Internet Protocol	Working Microsoft® TCP/IPv4 Stack
Browser	Microsoft® Internet Explorer® 10.0, 11.0 Microsoft® Edge
Access Components	Windows Data Access Components (WDAC) Note: MDAC changed to WDAC with Windows® Vista and Windows® Server 2008. WDAC is included as part of the operating system and is not available separately for redistribution. Serviceability for WDAC is subject to the life cycle of the operating system.
Microsoft® .NET Framework	Microsoft® .NET 4.5.2 Note: The .NET Framework is not installed with CWW and needs to be installed prior to running the installation for CWW.
Database Server	Minimum: For new installations of Xerox® CWW, a customer provided Microsoft® SQL Server® is required. Current installations may continue to use the Microsoft® SQL Server® Express database. Recommended: Use SQL Server® 2008 R2/2012/2014/2016/2017 Standard/Enterprise if available in the customer's IT environment. Note: If using a remote SQL Server, both the remote client on which SQL Server is installed and the Xerox® CWW Server client

Software Requirement	Recommendations
	require the Microsoft® Distributed Transaction Coordinator (MSDTC) service to be enabled and configured in order to allow remote client access. If the Windows® Firewall is running a firewall, an exception needs to be created for the MSDTC service. Note: When managing more than 5000 devices or using the Xerox® Print Agent feature, we recommend that you install a Standard/Enterprise version of SQL Server® on a separate server. The requirements for the separate database server should match the requirements for the Xerox® CWW server Note: If using an Azure SQL Services installation, the following components need to be installed and the server rebooted prior to installing Xerox® CentreWare Web: 1. Windows Management Framework 5.1 (Windows Server 2016, 2012 R2 or 2012*) *not available for Server 2008 or Server 2008 R2. 2. Azure Powershell 6.7.0 or later can be downloaded here from https://github.com/Azure/azure-powershell/ Both *x86 or x64 (default) should work. Installing PowerShell within the PowerShell ISE does not meet the requirement to list the software in the Windows Programs & Features list.
Other Components	Minimum: AJAX 2.0.

Client Software Requirements

BROWSER REQUIREMENTS

Although the CWW server can be used to directly browse the application, in some cases itis necessary for personnel to access the application from a remote desktop. Optimal performance and security can be achieved when using Internet Explorer® 10.0, or 11.0 and EDGE.

Warning

- Network Transmission Control Protocol/Internet Protocol (TCP/IP) must be loaded and operational.
- To use the IPX Network features of Xerox CentreWare® Web, an IPX protocol stack must be loaded and operational on the CWW server

Note: Xerox recommends that any desktop environments be kept up to date with the latest critical patches and service releases obtainable from Microsoft®.

Print Device Requirements

NETWORK PRINTER DISCOVERY/MONITORING REQUIREMENTS

For successful management by CWW, all SNMP-based printer devices should support the mandatory MIB elements and groups as defined by the following standards:

Standard	Description
RFC 1157	SNMP Version 1
RFC 1213	MIB-II for TCP/IP-based Internet
RFC 1514/2790	Host Resources MIB v1/v2
RFC 1759	Printer MIB v1
RFC 3805	Printer MIB v2
RFC 3806	Printer Finishing MIB
Optional: RFC 2271-2275	SNMP v3 Architecture

Xerox recommends that any printer be kept up-to-date with the latest patches and firmware obtainable from the manufacturer to ensure that the maximum amount of MIB object data can be exposed to the application.

2. Xerox® CentreWare Web Installation

The CWW installer provides a quick and easy way to install and configure the system for use in this evaluation. The installer utilizes Microsoft® MSI functionality, and requires Microsoft® .NET framework version 4.5.2 if not already installed on the target machine. In addition to installing CentreWare® Web, the installer can also install the redistributable package for Microsoft SQL Server® 2008 Express.

Suggested Prerequisites for This Evaluation

Before starting the CWW installation process, make sure that the following are available:

- An appropriate Windows® operating system server is network enabled and configured to meet the highest recommended configuration of the minimum hardware and software requirements listed here or in the Readme.txt file.
- DNS Name or Internet Protocol (IP) address of the Simple Mail Transfer Protocol (SMTP) server, if e-mail based Status Alerts are to be evaluated, and the username and password of the account used by CWW, if required by the SMTP server in use at this site.
- Account name, domain name, and e-mail address of the CWW administrator (the evaluator).
- If you require a proxy server for your internet connection, you need:
  - Proxy Server Address, Port Number
  - If your proxy server requires a login, you also need:
    - Authentication Type, User Name, Domain Name, and Password
- At least one networked printer for the evaluation. The device needs to be compliant to the SNMP RFCs.
- If the Smart eSolutions feature is to be completely functional, it is necessary to obtain a list of all the printers/devices currently under a Xerox Service agreement. This information may be available from the client's billing department. Details on the Smart eSolutions feature are available at: www.xerox.com/smartesolutions.

Expected Outcome of Installing CWW

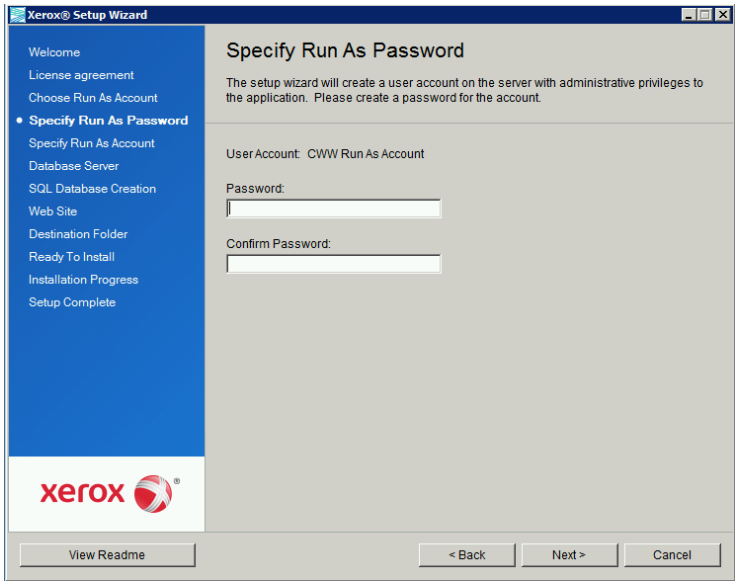
Upon completing the installation process according to this guide, the evaluator will have successfully installed CWW with a minimum amount of time spent. The installation process is expected to take less than 30 minutes to complete, given that all prerequisite information and systems are known and in place prior to beginning.

Installing CWW

For the purpose of this evaluation, the typical or standard installation process is used. Refer to the CWW Installation Guide to install the product using more advanced settings and options. This is available from the Xerox Web site at: http://www.xerox.com/centrewareweb.

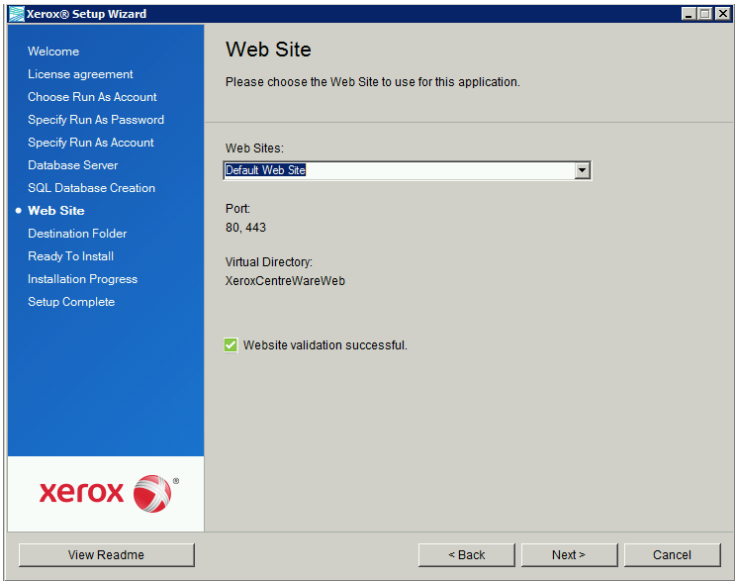
1. Obtain a copy of CWW and related documentation from the Xerox Web site and install it on the evaluation server. Access the Xerox Web site at: http://www.xerox.com/centrewareweb. The installer must have administrator level access to the server where CWW is being installed.
2. Download and run the CWW executable (EXE) file.

3. Click **Next** when the CWW Setup window opens.
4. When the License Agreement window is displayed, review the license, and if acceptable, select **Agree** and then click **Next**.
5. In the Choose Run As Account window, select either **Create Local Account** or **Specify Existing Account** and then click **Next**.
6. If you selected **Specify Existing Account** in step 5, In the Specify Run As Account window, enter the Domain or Workgroup, the User Name, and the Password and then click **Next** and move to step 8.
7. If you selected **Create Local Account** in step 5, In the Specify Run As Password window, enter the password for the Default CWW User Account that is to be used on the CWW server. Click **Next**.



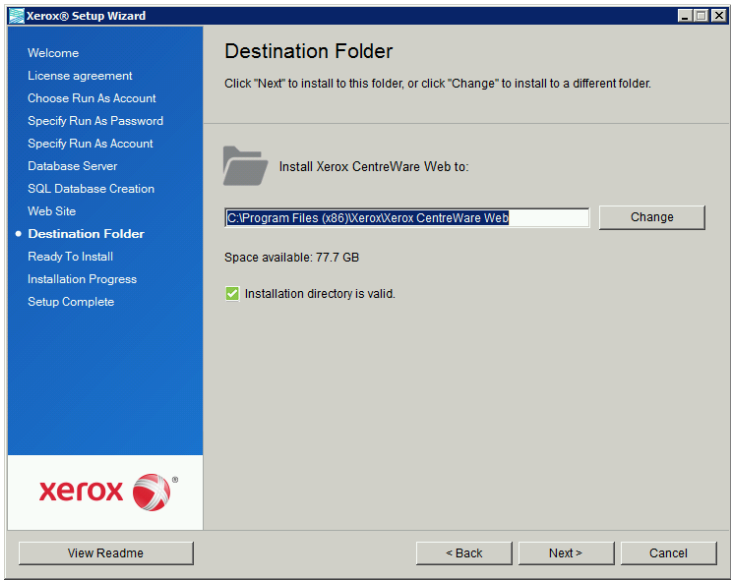
Note: All passwords must comply with the computer's local security policy requirements (length, characters, numbers, etc.). The CWW Configuration Utility can be used to set and reset passwords and the advanced user account, after installation, if desired. That use is described later in this guide.

8. Specify a database server and then click **Next**.
9. If the installer detects a database instance from a previous installation, CWW allows the database to be upgraded. Alternatively, a new database can be created, which will overwrite any existing database. Either choose an existing database, or enter the name of the new database, and then click **Next**.
10. Select the Web site to use for this application. The Web site text field indicates the default Web site. Click the Web Sites drop-down arrow to select another option, and then click **Next**.

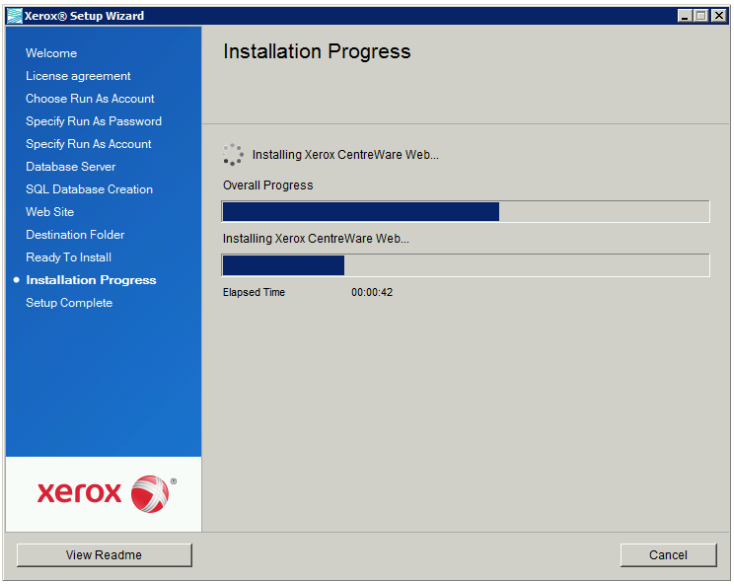


11. CWW displays the default destination folder in the Destination Folder window. Most installations can use the default location (C:\Program Files\Xerox\CentreWareWeb\). Click **Next** to accept the default location, or click the **Change** button to select another location for the application. Enter the desired location and then click **Next**.

Note: The installer does not allow installation under Drive Root or a non-NTFS formatted partition.



12. In the Ready To Install window, click **Install** to begin the installation.
13. The Installation Progress screen opens, indicating the status of the installation.



14. Once CWW is installed successfully, the Setup Complete window shows. Click **Finish**.

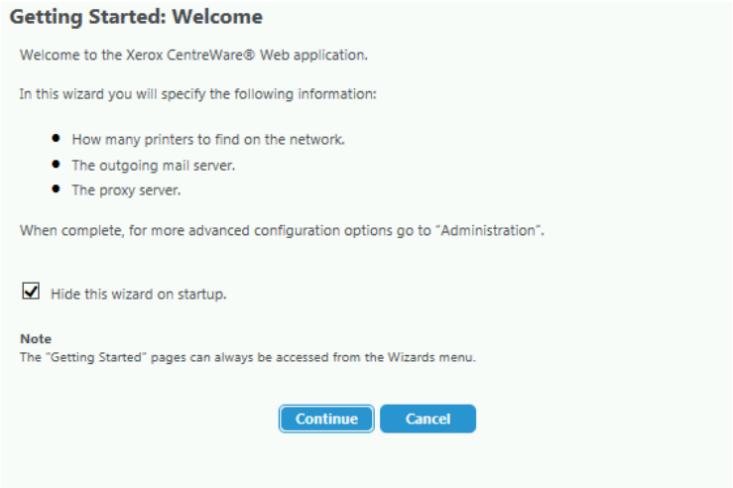
DEMONSTRATING THE CWW INSTALLATION

You can see if CWW was installed successfully by viewing the product features from a Web browser on the server or from a remote machine. After you install the application, you can access it at http://<Server Name>/XeroxCentreWareWeb/default.aspx , where <Server Name> is the local server.

Getting Started Wizard

The Getting Started Wizard provides a quick way to specify how many printers to find on the network, how often to gather information about them and defines the SMTP outgoing mail server and the proxy server. Advanced configuration options are discussed later in the Administration Features section.

Read the information in this window and if desired, select the **Hide this wizard on startup** check box and then click **Continue**.


Getting Started: Welcome
Welcome to the Xerox CentreWare® Web application.
In this wizard you will specify the following information:
How many printers to find on the network.
The outgoing mail server.
The proxy server.
When complete, for more advanced configuration options go to "Administration".
Hide this wizard on startup.
Note
The "Getting Started" pages can always be accessed from the Wizards menu.
Continue
Cancel

Note: You may skip any step during the Getting Started Wizard and return to it at a later time by selecting the Getting Start Wizard from the Wizards drop-down menu in CentreWare® Web.

GETTING STARTED: HOW MANY PRINTERS DISCOVERY WIZARD

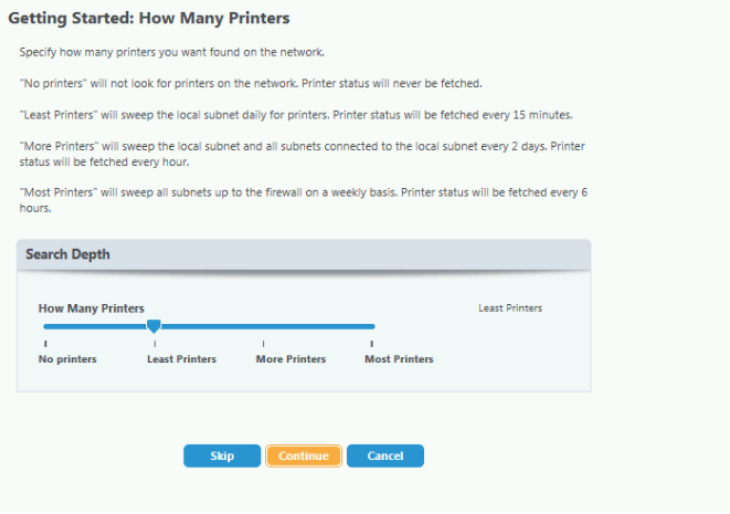
At this point in the procedure, you should configure CWW to perform an initial device discovery that is loaded into the database and set the frequency of the status polling you want performed.

The search depth for printers ranges from:

- **No printers**: Discovery is not performed.
- **Least Printers (default)**: Sweep the local subnet immediately and then daily, with status fetched every 10 minutes.
- **More Printers**: Sweep the local subnet and all subnets connected to local subnet immediately and then every 2 days, with status fetched every 60 minutes.
- **Most Printers**: Sweep all subnets up to the firewall immediately, and then on a weekly basis, with status fetched every 6 hours.

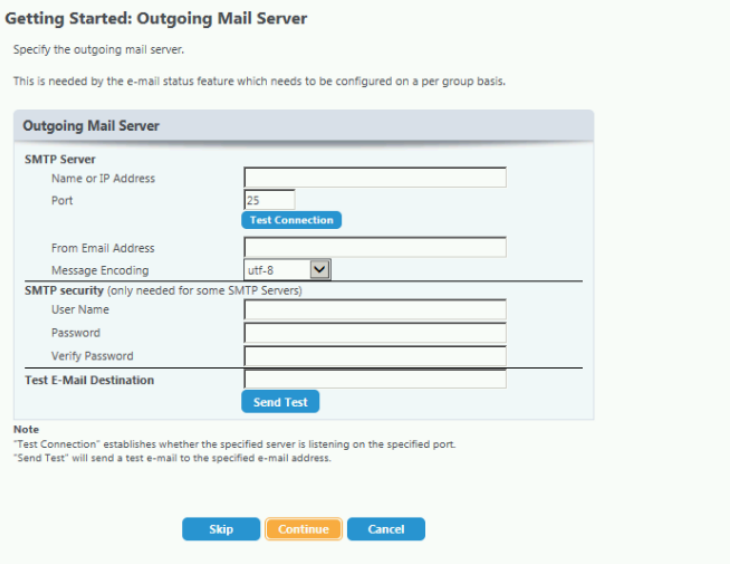
For the purpose of this evaluation, select the default Least Printers. The Least Printers option utilizes an IP Easy Discovery method to discover printers on the network.

Move the slider to select the desired How Many Printers option (in this instance, Least Printers). After selecting the desired search depth, click **Continue**.


Getting Started: How Many Printers
Specify how many printers you want found on the network.
"No printers" will not look for printers on the network. Printer status will never be fetched.
"Least Printers" will sweep the local subnet daily for printers. Printer status will be fetched every 15 minutes.
"More Printers" will sweep the local subnet and all subnets connected to the local subnet every 2 days. Printer status will be fetched every hour.
"Most Printers" will sweep all subnets up to the firewall on a weekly basis. Printer status will be fetched every 6 hours.
Search Depth
How Many Printers
Least Printers
No printers
Least Printers
More Printers
Most Printers
Skip
Continue
Cancel

INITIAL E-MAIL NOTIFICATION SETUP

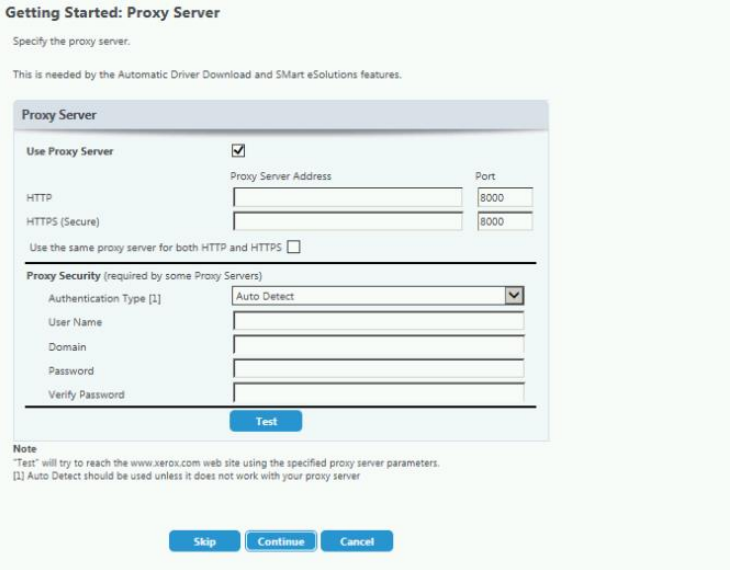
The next step in the Getting Started Wizard process allows the user to configure the appropriate SMTP e-mail server network information that CWW uses for e-mail based Status Alert notifications. Once the network address information has been entered, the administrator can test the connection between the mail server and the CWW as well as send out a test e-mail alert message to a specified address. Among the information needed to complete this step is the e-mail address that CWW should use as the from e-mail address for email alerts.



1. Enter either the DNS server name or the IP Address and the Port Number of the SMTP server and then click **Test Connection**.
2. After successfully completing this test, complete the From E-mail Address field, and if required, the SMTP security section.
3. In the Test E-mail Destination text field, enter a valid e-mail and then click **Send Test**.
4. The application sends an e-mail message confirming successful configuration of CWW to this address. Click **Continue** to finish the e-mail configuration and continue on to configure the proxy server.
5. In the From text field, enter the CWW evaluator's e-mail address. You can also set this up later with an evaluation exercise located in the Administration section.

PROXY SERVER SETUP

Next, configure the appropriate proxy server settings that CWW uses during Automatic Drive Downloads and during communications with the Xerox Communications server as part of SMart eSolutions. When you first access this page, the CWW detects and displays the current proxy server setting of the CWW server's administrator account automatically. You can override these settings if necessary. CWW supports both HTTP and HTTPS (secure) proxy servers.



To configure an HTTP proxy server:

1. Enable the proxy server by selecting the **Use Proxy Server** check box.
2. Enter the proxy server address and the proxy server port number in the corresponding fields for HTTP.
3. If needed, enter the proxy server information.
4. Click **Test** to confirm the connection and then click **Continue**.
5. After you have specified the proxy server settings, click **Continue**. The Getting Started: Completed window opens.

To configure a separate HTTPS proxy server:

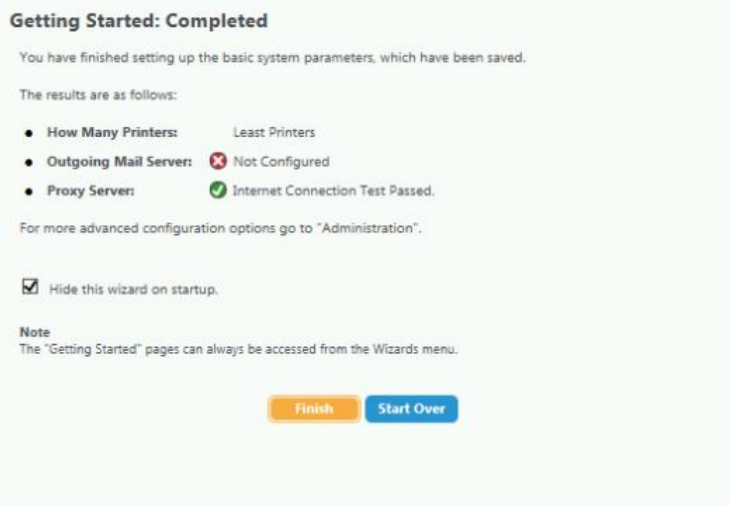
1. Verify that the Use the Same Proxy Server for HTTP and HTTPS check box is selected.
2. Enter the proxy server address and proxy server number in the corresponding fields for HTTP.
3. If needed, enter the proxy server information.
4. Click **Test** to confirm the connection and then click **Continue**.
5. After you have specified the proxy server settings, click **Continue**. The Getting Started: Completed window opens.

To configure both HTTP and HTTPS to use the same proxy server:

1. Select the **Use the Same Proxy Server for HTTP and HTTPS** check box.
2. Enter the proxy server address and the proxy server port number in the corresponding fields for HTTP.
3. CWW automatically configures the HTTPS proxy server with the same settings as the HTTP proxy server.
4. If needed, enter the proxy server information.
5. Click **Test** to confirm the connection and then click **Continue**.
6. After you have specified the proxy server settings, click **Continue**. The Getting Started: Completed window opens.

GETTING STARTED: COMPLETED

This screen summarizes the three settings configured during the wizard and their status, if applicable. This wizard launches each time an administrator starts up CWW. However, you can disable the wizard from launching by selecting the Hide this wizard on startup radio button. Click Finish to return to the CWW home page.


Getting Started: Completed
You have finished setting up the basic system parameters, which have been saved.
The results are as follows:
How Many Printers: Least Printers
Outgoing Mail Server: Not Configured
Proxy Server: Internet Connection Test Passed.
For more advanced configuration options go to "Administration".
Hide this wizard on startup.
Note
The "Getting Started" pages can always be accessed from the Wizards menu.
Finish
Start Over

Installation Section Summary

After you complete the steps in this section, you should have an understanding of the following aspects of the CWW installation process:

- Hardware and software prerequisites
- Required documentation and installation instructions
- Steps needed to install and configure the application in your environment
- How to demonstrate successful installation and begin using the system

3. CWW User Interface

It is important to have a basic understanding of the User Interface (UI) and navigational features of CWW.

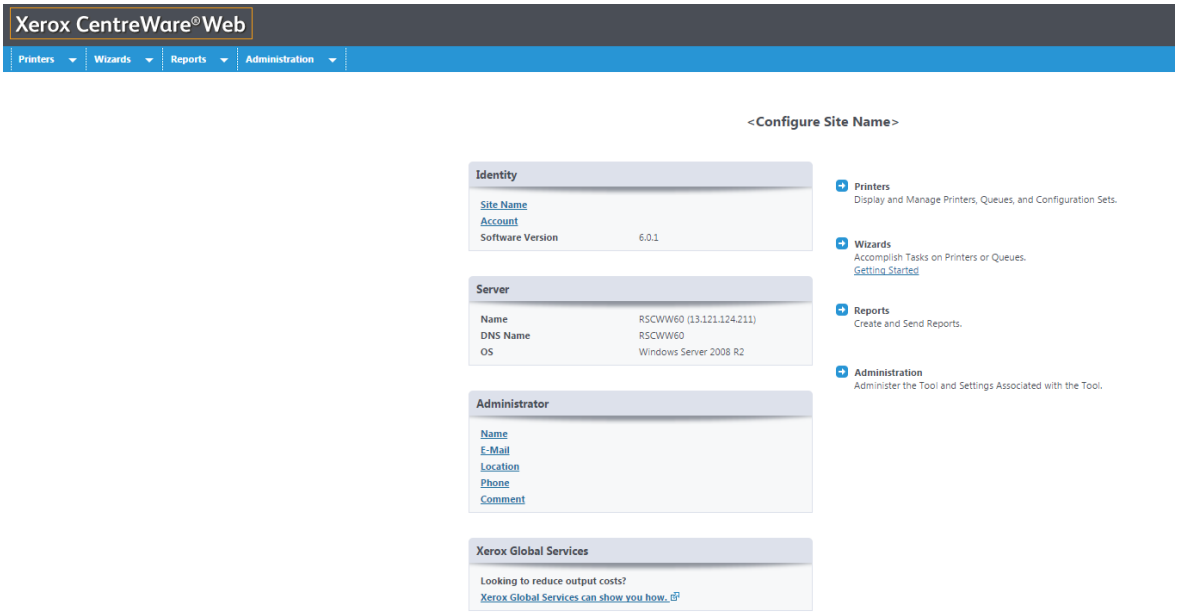
Prerequisites for This Section

Before you can begin your review of the UI, you must complete the following actions:

- Complete installation without errors
- Complete the Getting Started Wizard or complete printer discovery using another method
- Navigate to the CWW home page

The CWW Home Page

CWW displays this page when you access the CWW server through the Web browser or another machine. Note that in this view, all four of the main pages (Printers, Wizards, Reports, and Administration) are accessible via two paths. Navigate to any of those pages by clicking the respective tab at top of page or by clicking the arrow icons to the right of the Identity and Server sections. Hovering over the tabs exposes the sub-menus that are available for that tab.

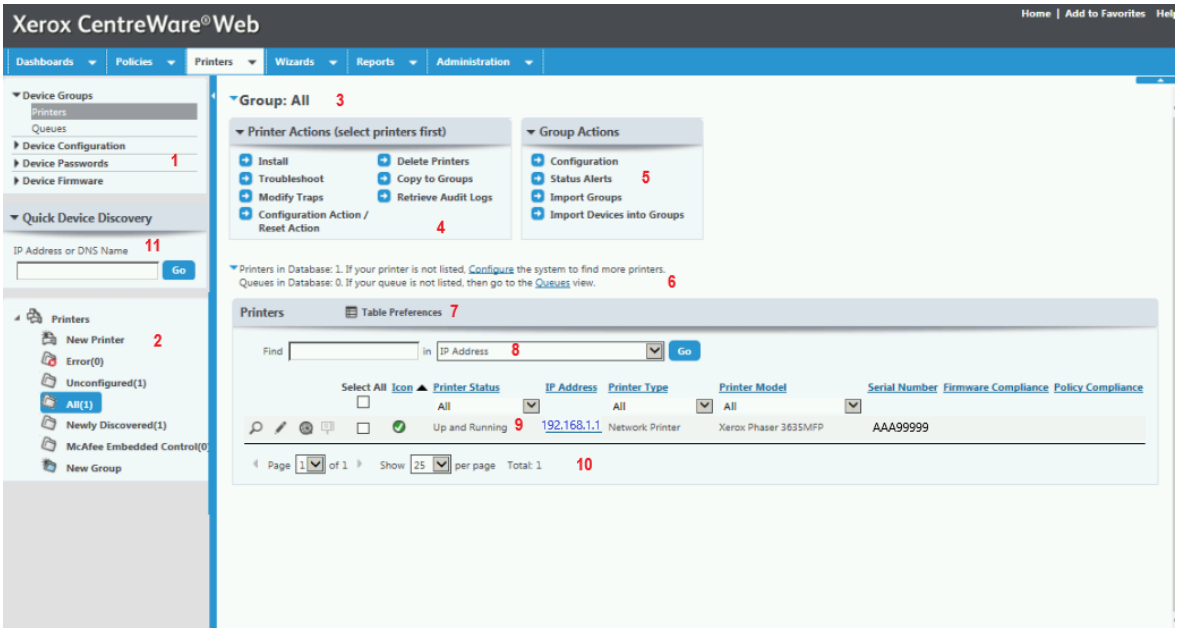


1. To view the initial Getting Started discovery results, select **Printers > All**.
2. CWW displays the discovered printers in the Printers > All Group window.
   a. If CWW does not display printers in the All Printers Table View window, make adjustments to the discovery settings and rerun discovery. But first, check the following to confirm connectivity to a device:
      - From the Windows Operating System Start menu, select **Start > Run** and enter **cmd**:

- In the Command window, enter **ping** and then enter a **selected IP address** to confirm network connectivity.
- Go to **Administration > Discovery > SNMP v1/v2** and confirm that the appropriate GET and SET Community names are defined.
  - Under SNMP, verify that Printer SNMP GET Community Names contains public in the Current Names.
  - Verify that Printer SNMP SET Community Names contains public and private in the Current Names.

Overview of the Printers Main Menu View

This figure identifies the features of the Printers main menu by numbers 1-11. The subsequent paragraphs use those numbers as a reference point when describing each feature.



NAVIGATION MENU (1):

- **Device Groups**
  - **Printers**: Clicking Printers displays all the currently discovered printers. The Printers view (as illustrated above) provides access to printer properties and features such as Table Preferences, Actions, etc.
  - **Queues**: Displays the managed printer servers and active directories found on the network.
- **Device Configuration**
  - **Configuration Sets**: Displays the configuration templates that you can use to set up and enable multiple printer configuration sets.
  - **Configuration Policies**: Displays policies that you can use to schedule and run the configuration sets.
- **Device Passwords**
  - **Password Policies**: Displays policies that you can use to monitor, remediate, and update administrator passwords.
  - **Stored Device Passwords**: Displays an interface to view and update device administrator passwords.

- Device Firmware
  - Firmware Version Policies: Displays the interface used to create monitoring and scheduling tasks for firmware updates.
  - Deployment Tasks: Displays the tasks that run for scheduled firmware policies.
  - Software File Repository: Displays the interface used to store firmware files for device upgrades.

PRINTER NAVIGATION FOLDER WINDOW (2):

In this window, you can add new printers, create new groups, and configure printers into groups. Groups allow you to organize, manage, and configure network printers based on common attributes. For example, you may want to put all the multi-function devices or all the devices in one location in one group.

When enabled through the Administration menu, the SMart eSolutions Group is part of this view.

Predefined Groups in Printer Folders Window:
The CWW application creates four system groups during installation. These groups are:

- New Printer: Allows you to manually add a printer to the list of available printers.
- Error Group: CWW can display printers in an error state in this group.
- Unconfigured Group: Printers that do not have a queue set up on the server. These are printers that are functional and that CWW can find during discovery, but no there is no associated print queue.
- All Group: All of the printers discovered by CWW are included in the All group. Every printer is a member of the All group whether or not they are members of any other groups or subgroups.
- Newly Discovered: Discovery automatically adds new printers and printers with changed IP addresses to this group. After any management activities, you should remove the printers from this group. You can copy selected printers to other groups and then remove them, or just remove the printers from this group.
- New Group: You can create any number of custom groups, set the identity for the group (fully editable), and configure the Advanced > Communication settings and the Status and History Retrieval settings. You can organize these custom groups as custom top level or can be set to be a child of a custom top level group.

GROUP ID (3):

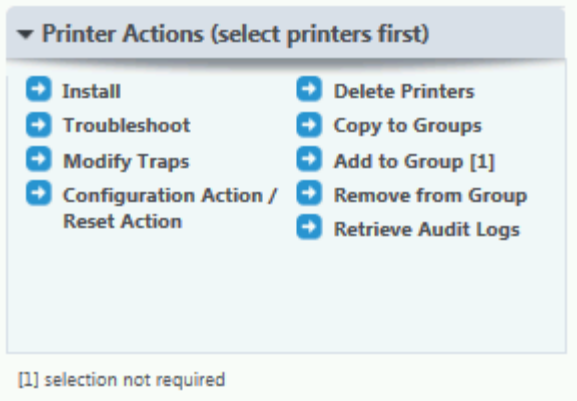
The top of the window always indicates the group of printers. In this instance, we are viewing All Discovered printers.

PRINTER ACTIONS WINDOW (4):

The Printer Actions window gives you access to sub-menus that contain functionality to assist you in managing printers on the network.

You must first select a printer from the Printers View by selecting the check box next to the printer listing.

You can collapse or expand the Printer Actions window by selecting the arrow to the left on the Printer Actions title. When collapsed, the Printer Actions features are displayed as a pull-down menu. This behavior applies to other cases where multiple selections within a feature grouping occur (For example Group Actions).



The following actions are possible:

- **Install**: Installs up to 25 printers on any print server queue managed by the application.
- **Troubleshoot**: Provides printer status, access to printer Web server, print test page to printer, or reset printer.
- **Modify Traps**: Register and clear traps for this server in the device.
- **Configuration Action/Reset Action**: Provides the capability to apply configuration sets to one or more devices, audit printers with established configuration sets, and to reset printers.
- **Delete Printers**: Remove printer from database completely.
- **Copy to Groups**: Copy selected printer(s) to user-created or system-default groups.
- **Add to Group***: Enables you to choose printers from any group and add them to a custom group.
- **Remove From Group***: Enables you to remove printers from a custom group.
- **Retrieve Audit Logs:** Attempts to get audit logs from selected device(s)

* These two functions are not displayed for the Error, Unconfigured, or All groups.

GROUP ACTIONS (5):

The Group Actions box gives you access to sub-menus that contain features to help you manage system and custom groups on the network. The following actions are possible:

- **Configuration**: View/define the name, owner, and attributes of this group. Additionally, set up the dynamic group filter for this group of printers.
- **Status Alerts**: Define the conditions in a device that triggers an alert, what information to display about the printer that is generating the alert, and where to send the e-mail notification.
- If one of the Custom Groups (user-defined) has been highlighted, the following Group Actions are available.
  - **New Sub Group**: Create a child group folder and place it under the highlighted group.

– **Reorder Group**: Move this group up or down in the custom groups list.
– **Set Parent Group**: Reassign an existing group to a different parent group.
– **Delete Group**: Permanently remove this group from the database.

SHOW COMMENT/DATABASE RESULTS (6):

The Show Comment displays the number of printers and queues that are currently in the database. There are additional links to discover more printers as well as to add servers and active directories (additional queues).

TABLE VIEW AND TABLE PREFERENCES (7):

The Printer Table view is a column view of all the selected Table Preferences fields. Clicking the column heading name sorts the information based upon that column heading. Choosing a filtering option from the drop-down lists sorts the information displayed based upon that selection. When you select All, CWW selects all the items in the list. You can view and update properties that provide information about a specific printer using the Edit options or through the printer's embedded Web server.

The Table Preferences icon links you to the configuration page where you can set up the Printer Table view. You can also configure the refresh rate, paging toolbar, and scroll bars for the lists here.

Overview of Display Fields Sub-Window

- The Available Fields window lists printer status fields that are available for display in alphabetical order.
- The Included Fields window lists printer status fields currently being displayed for all groups.

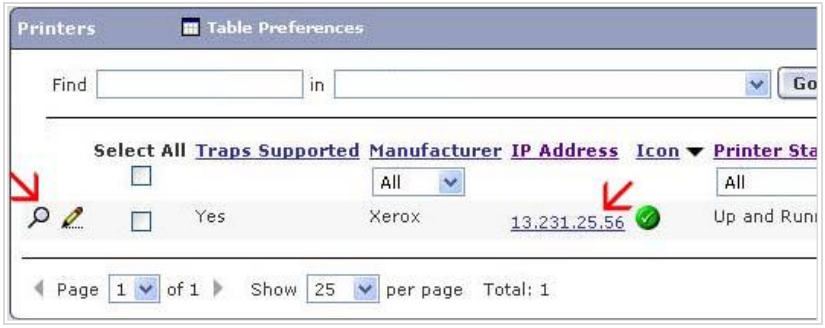
- Restore defaults sets the Included Fields for the Printers window to: Icon, Printer Status, IP Address, Printer Model, and Serial Number.
- Additional arrow buttons allow you to move fields to and from the Available and Included fields and to change the order in which those fields are displayed in the group's Printer view.

FIND AND IN (8):

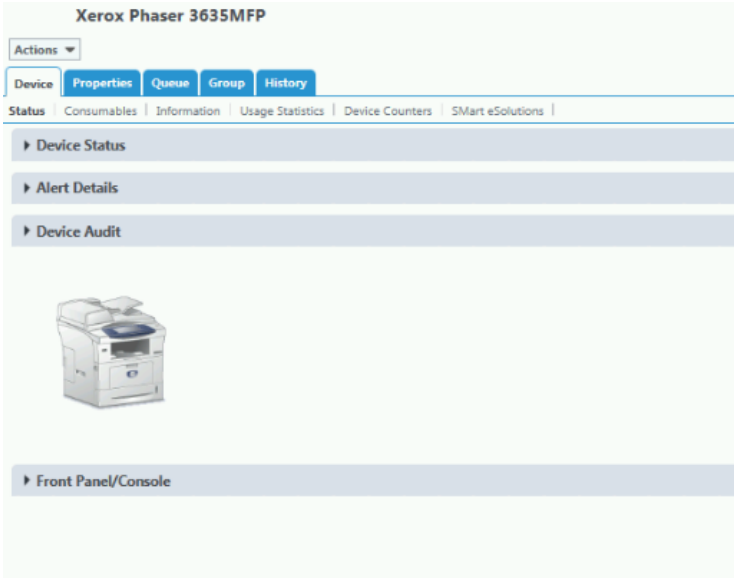
The Find and In fields can help you filter the list of printers when you enter a combined set of variables. For example, if your site contains HP and Xerox printers but you only want to view the Xerox, printers, you would enter Xerox in the Find field and then filter the In field by manufacturer. CWW displays results for all printers manufactured by Xerox.

PRINTER TABLE VIEW (9):

To access the detailed Printer Display, click the magnifying glass icon of a particular printer. To edit those, click the pencil. The Printer display provides a powerful tool in managing the printer and gives you status information, editing capabilities, trap information, troubleshooting, and management capabilities.



You can also access this page by clicking the IP Address link located in the Printers Table View.



In addition to the actions described in the Printer Actions (4), the following capabilities are available from the detailed Printer Properties page.

- **Edit Properties**: Allow you to modify printer settings.
- **Printer Web page**: Provides access to the embedded Web server for the printer.
- **Reset Printer**: Provides the ability to reboot a printer over the network.
- **Refresh Data**: To get up-to-the-minute status of the displayed printer, click Refresh Status. This action requests current status information from the printer (instead of from the database).

The detailed Printer Display properties are briefly defined below:

Status: Allows you to view the current status of traps and alerts and the age of the status report.

Consumables: Displays print cartridge, paper tray, output bin, and finisher information

Information: Provides printer ID (type, manufacturer, Model, Firmware Level), serial numbers or asset numbers, MAC Address, DNS Name, IP Address, Network ID, Location, and Discovery method used to find a device. Outlines what the printer is capable of doing (i.e. is it an MFD, color device, analog fax, marking technology, color capabilities) and basic hardware information.

Usage Statistics and Device Counters: Provides information from device usage counters such as page count, number of 2-sided impressions, % of 2-sided impressions, scan to e-mail, etc.

PAGING TOOLBAR (10)

The paging toolbar displays the total number of pages of discovered printers and allows you to move to any of the pages. You can configure this information to display at the top or bottom of the window in the Table Preferences dialog box. You can also configure how many printers you want to display on each page (up to 500). The paging toolbar also includes the total number of printers in this group.

QUICK DEVICE DISCOVERY (11)

This pane allows you to quickly enter an address to discover and add to Xerox CentreWare Web.

4. Device Discovery

Discovery Methods

CWW provides multiple IP and IPX-based discovery methods for identifying devices on a network. Additionally, you can query the domain controller or Microsoft Active Directory® for known printers as part of the discovery process. You can configure each method individually by selecting the **New Discovery** Method from **the Administration>Discovery>Discovery Methods** Web page or by selecting and editing a previously saved discovery instance. By configuring subnet and IP address information, you can tailor discovery to find individual printers or specific groups of printers. You can also exclude certain subnets from the discovery process on the Administration > Discovery > Discovery Exclusions page. You can also specify the frequency, date, and time for scheduling automatic discovery.

IP ADDRESSES/DNS NAMES

CWW discovery operations support IP addresses and DNS Names, which you can intermix within a discovery. You can also export and import lists of addresses into discovery and discovery exclusions operations.

IPV6

CWW supports the IPv6 communication protocol, providing the ability to manage devices in IPv6 environments. There are, however, some differences in the behavior of CWW with IPv6 vs. IPv4.

For IPv6, CWW can:

- Communicate with devices via IPv6
- Import a file of IPv6 addresses for discovery via IP Sweep

For IPv6, CWW cannot:

- Automatically discover devices on the network with only IPv6 addresses
- Support Queue management of IPv6 addressed devices

IMPORT/EXPORT FUNCTIONS

CWW provides the capability to import and export lists of device addresses for use in discovery and discovery exclusions operations. The files are in comma-separated value (CSV) format. Three discovery operations support Importing and Exporting device lists:

- IP Broadcast Sweep
- IP Sweep
- Discovery Exclusions

By clicking the **Export** button in any one of these pages, CWW generates a file with a listing of all devices associated with that particular discovery or exclusion instance. You can easily edit these files by using any software that can read CSV files such as Microsoft Excel®. You can also import these files by clicking Import and navigating to the appropriate file location. This functionality makes it easy to enter, update, and

maintain the discovery and exclusion lists. To create a file template, simply click Export and save the file. The file header displays the required CSV format for each entry in the file: DNS Name, IP Address, Start IP Address, End IP Address, Subnet Mask, Comment<CR> where <CR> = carriage return.

For entries where not all of the fields are utilized, a comma replaces the unused field. For example, if you need to scan a range of IP addresses, CWW does not use the DNS and IP Address fields for individual devices. The format would be: Start IP Address, End IP Address, Subnet Mask, Comment<CR>where<Start Address> = beginning address in range and <End Address> = last address in range

COMMENTS

You can add comments to discoveries and discovery exclusions, including any useful information about the purpose of the task. For example, a discovery exclusion might have a comment that a company owner uses the excluded devices exclusively, so these devices are not managed.

Network Impact of Device Discovery

This evaluation guide provides information on how to set up and execute the various discovery methods and notes any caveats associated with each method.

PREREQUISITES FOR THIS EVALUATION

Up until this point in the evaluation, the guide has only provided you with information about discovery to the local subnet via the Getting Started Wizard and the Least Printers selection. The following evaluation exercises show you how to perform printer discovery outside of the local subnet and across your intranet.

As you select the discovery methods that you want to permit in your network, consider which portions of the intranet you want to monitor and the form of discovery. You can configure these subnets/addresses in the Administration > Discovery > Discovery Methods page.

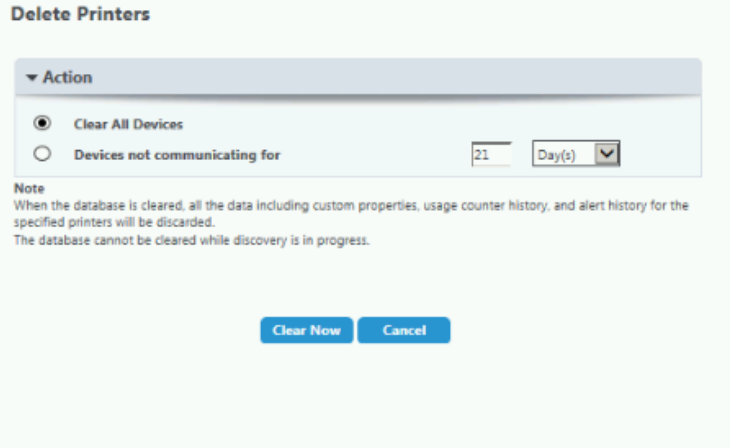
You should also give additional consideration to which portions of the network need to be excluded from the discovery process, if any. You can exclude those subnets in the Administration>Discovery>Discovery Exclusions page.

Lastly, if you have set the SNMP community name strings for the printers to anything other than the default public or private name strings, apply these strings to the CWW Discovery methods on the Administration>Discovery>SNMP v1/v2 page in order to discover printers.

Some of the evaluation exercises in this section instruct you to clear the database, so that you can confirm that the discovery process is working. Deleting printers resets the database, so you can re-discover printer the next time you run the discovery.

To clear the database:

1. Select Administration > Discovery > Delete Printers. The following window opens:


Delete Printers
Action
Clear All Devices
Devices not communicating for
21
Day(s)
Note
When the database is cleared, all the data including custom properties, usage counter history, and alert history for the specified printers will be discarded.
The database cannot be cleared while discovery is in progress.
Clear Now
Cancel

2. Select the Clear All Devices radio button.
3. Click Clear Now.

Quick Configuration

Quick Configuration is a method for discovering network printers quickly. There are three configuration modes that allow you to select how far and how often you want discovery to fetch printers from the network and at what frequency you want it to gather the statuses.

The three configuration modes are:

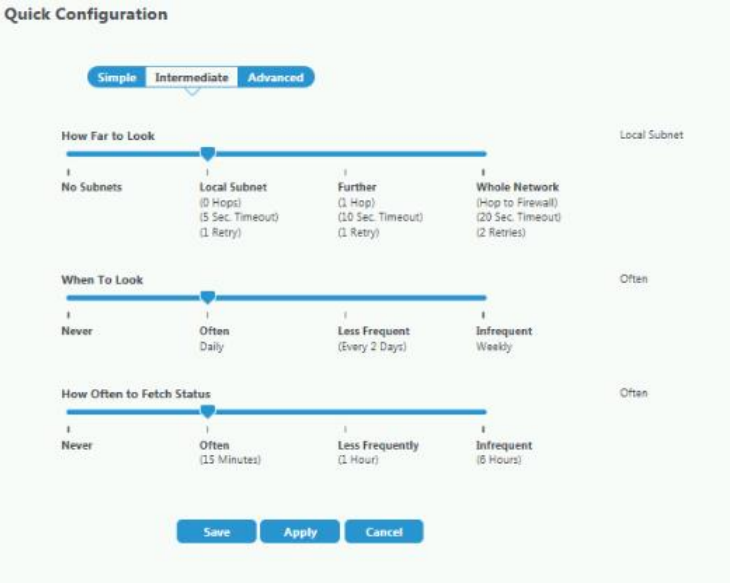
- **Simple**: displays a screen similar to the Getting Started Wizard.
- **Intermediate**: allows you to apply closer control over discovery and status retrieval.
- **Advanced**: displays a screen similar to discovery methods.

The Intermediate mode is presented below. The Simple mode has been previously described in the Getting Started Wizard section and the Advanced mode is described in the following paragraphs on Discover Methods.

QUICK CONFIGURATION EVALUATION: INTERMEDIATE

To evaluate Quick Configuration:

1. Clear all printers from the database as described in the Clear Database procedure.
2. Navigate to **the Administration > Quick Configuration > Intermediate** page.
3. Set the How Far slider to **Further** (1 hop).
4. Set the When to Look slider to **Less Frequent** (every 2 days.).
5. Set the How Often to Fetch Status slider to **Often** (10 minutes).
6. Click **Save**.
7. CWW automatically starts and runs the discovery. To see the progress of the discovery, navigate to the Administration > Quick Configuration > Advanced mode and then click the **Progress** button, or navigate to Administration > Discovery Methods and click the **Progress** button.



Discovery Options

SETTING UP IP BASED DISCOVERY METHODS

The Discovery Method Status Web page lists each of the currently configured discovery methods defined for a CWW site. Click the **Table Preferences** icon to configure what information you want to display, such as when the last status update took place and when the next discovery is scheduled. You can trigger any of the listed discovery mechanisms immediately by selecting the appropriate discovery instance and clicking **Run Discovery Now**. You can configure these options individually by selecting the corresponding **Edit** icon.

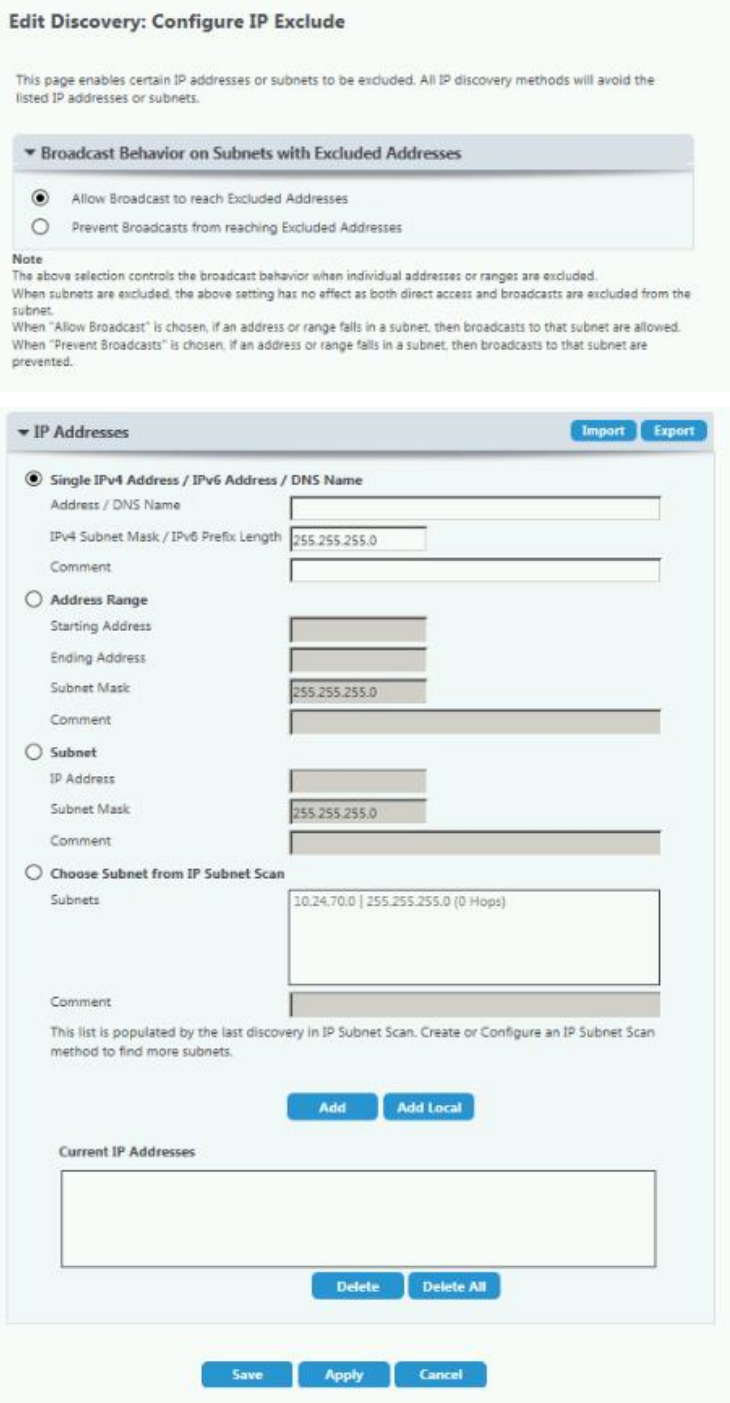
DISCOVERY EXCLUSIONS

If you need to remove certain subnets on your intranet or specific IP addresses during discovery, you can define these exclusions in the Discovery Exclusions Web page.

You can exclude a single IP address or DNS name, an address range, or a subnet by entering the appropriate information in the IP Addresses section. You can also import a file of addresses or address ranges can by using the Import function.

You can also add comments or any other pertinent information to any exclusion to help you identify why these addresses are excluded from discovery.

When running automated remote device discovery over a REST Service, if you have multiple Xerox® CentreWare Web servers, you must configure a discovery exclusions list.


Edit Discovery: Configure IP Exclude
This page enables certain IP addresses or subnets to be excluded. All IP discovery methods will avoid the listed IP addresses or subnets.
Broadcast Behavior on Subnets with Excluded Addresses
Allow Broadcast to reach Excluded Addresses
Prevent Broadcasts from reaching Excluded Addresses
Note
The above selection controls the broadcast behavior when individual addresses or ranges are excluded.
When subnets are excluded, the above setting has no effect as both direct access and broadcasts are excluded from the subnet.
When "Allow Broadcast" is chosen, if an address or range falls in a subnet, then broadcasts to that subnet are allowed.
When "Prevent Broadcasts" is chosen, if an address or range falls in a subnet, then broadcasts to that subnet are prevented.
IP Addresses
Import
Export
Single IPv4 Address / IPv6 Address / DNS Name
Address / DNS Name
IPv4 Subnet Mask / IPv6 Prefix Length
255.255.255.0
Comment
Address Range
Starting Address
Ending Address
Subnet Mask
255.255.255.0
Comment
Subnet
IP Address
Subnet Mask
255.255.255.0
Comment
Choose Subnet from IP Subnet Scan
Subnets
10.24.70.0 | 255.255.255.0 (0 Hops)
Comment
This list is populated by the last discovery in IP Subnet Scan. Create or Configure an IP Subnet Scan method to find more subnets.
Add
Add Local
Current IP Addresses
Delete
Delete All
Save
Apply
Cancel

DELETE PRINTERS

The Delete Printers function removes unwanted printers from the database. This action clears the entire database of printers. To remove unwanted devices from the database:

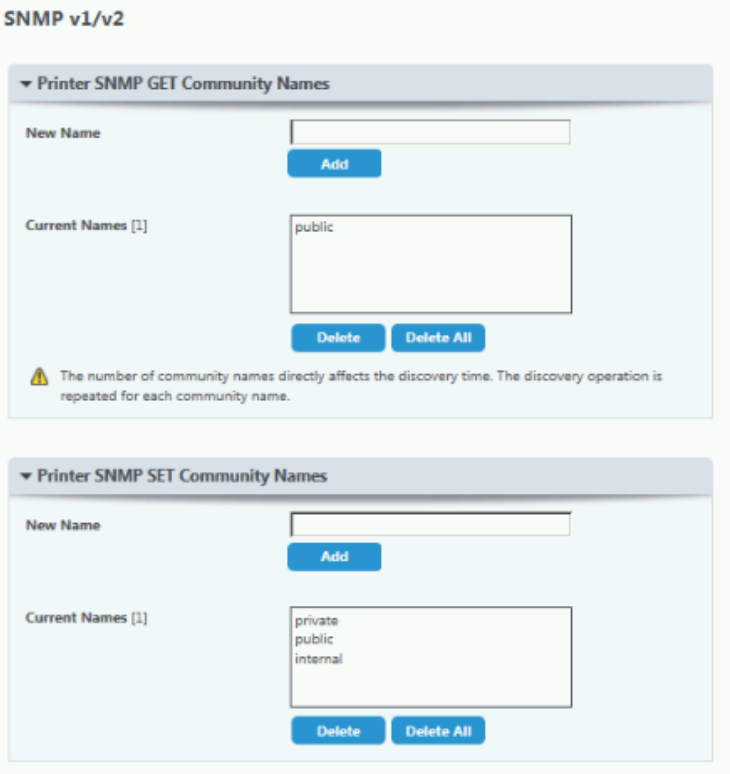
1. Choose Administration > Discovery > Delete Printers.
2. Select the Clear Devices action.
3. Click **Clear Now**.

4. Click **Confirm**.

You can also clear printers that have not communicated in a predetermined length of time by selecting the Devices not communicating for option, specifying the number of days, and then clicking the **Clear Now** button.

SNMP V1/V2

The SNMP GET and SET Community Names option enables you to specify which SNMP community names to use when retrieving information from printers and applying settings. If the printers on your intranet have the SNMP access community name strings set to a community name other than public for getting SNMP information and private for setting SNMP information, then CWW needs to have the name strings in order to unlock the important MIB information stored within the devices. You can perform this task within the SNMP v1/v2 Web pages within the discovery configuration section of CWW.

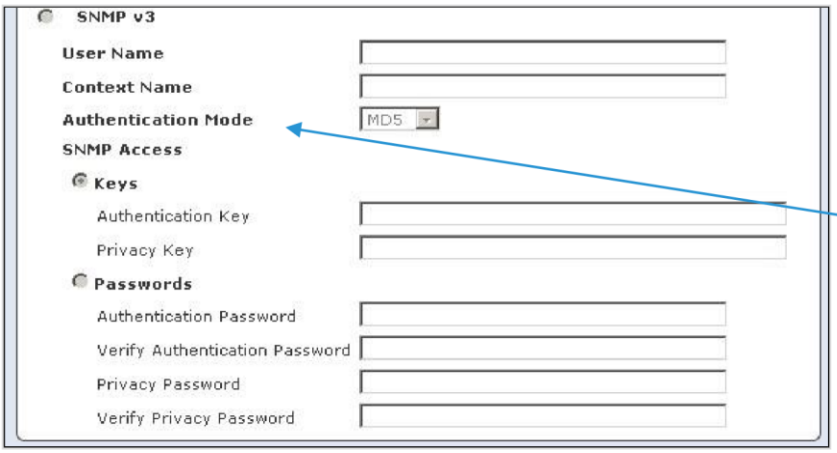


To change the SNMP v1/v2 community names:

1. Choose **Administration > Discovery > SNMP v1/v2**.
2. To add a community name, enter a new name, and then click **Add**.
3. To remove a community name, go to the Current Name section, select an item, and click **Remove**.
4. Make the settings changes and click **Save** to save the changes or click **Cancel** to exit the page without making changes.

SNMP V3

In addition to SNMP v1/v2, CWW supports SNMP v3. You can configure the SNMP v3 username, context name, authentication mode, and the SNMP v3 access keys and password via the Edit Properties page for a device.



GENERAL DISCOVERY METHOD SETUP NOTES & CONSIDERATIONS

The IP-based methods have many similar characteristics. The following notes apply to any of the IP-based discovery methods.

- You can configure CWW to automatically schedule all discovery methods to occur at a predetermined frequency defined in hours, days, weeks, or months. You can also specify when the first iteration of the recurring schedule for a given discovery method occurs.
- You can specify Subnet Scan methods in terms of the number of hops that the scan is limited to (i.e. restricting the scan to a specific number of hops or all subnets within the firewall).
- Depending on your network complexity, you may want to adjust the Subnet Timeout value in the Advanced settings of this Discovery method. The recommended Timeout per Printer setting is five seconds and the recommended Retries setting is 1 for this evaluation.
- Be sure to configure IP Exclude before using the All Subnets in the Firewall option to prevent IP Easy Discovery from communicating with specific subnets within the firewall.
- You can block the ability to answer SNMP requests via routers or you can disable it on selected printers.

Although the setup of each of the discovery methods is similar, there are some nuances for certain methods that you should note.

IP SWEEP DISCOVERY

IP Sweep Discovery configuration allows you to add the Internet Printing Protocol (IPP) as a last resort during device querying in the event that the device fails to respond to SNMP v1/v2 queries. By selecting this option, the Discovery process may experience significant delay in completing the sweep operation, and could introduce additional network traffic. You can access this option under the Advanced settings at the bottom of the IP Sweep Discovery page.

SNMP V3 DISCOVERY

SNMP v3 discovery allows you to find more than one v3 printer at a time.

IP ARP CACHE DISCOVERY

IP ARP Cache Discovery only discovers networked printers.

IP SUBNET SCAN DISCOVERY

CWW lists the subnets found during the last scan in the Subnets window.

MANUAL DISCOVERY USING IP ARP CACHE

Use this method if you do not know the network subnet topology.

1. Clear the database by selecting Administration > Discovery > Delete Printers.
2. Click Clear Now.
3. From Administration > Discovery > Discovery Methods, select New Discovery, and then select the **IP ARP Cache** radio button.
4. Click Continue.
5. In the Identity text field, enter a name for this discovery.
6. In the Schedule text field, select the button for the frequency with which you would like this discovery to run.
7. Enter the schedule rate, the next scheduled date, and the next scheduled time.
8. Select the Limit subnet scan to, and enter a value of 1 for the number of hops.
9. Click **Save**.
10. From Administration > Discovery > Discovery Methods, click the IP Subnet Scan > Discover Now button. (Make a note of the time when this action was taken.)
11. Wait for the Discovery in Progress indicator to reach 100%.
12. View the results of the discovery on the printer page by displaying the All printers folder. The Discovery Date field for all of the printers listed should have a time approximately equal to the time discovery was initiated.

MANUAL DISCOVERY USING IP SUBNET SCAN

Perform this step if you do not know the network subnet topology. This step discovers subnets for use in the actions described below. No printers are discovered.

1. From Administration > Discovery > Discovery Methods, select IP Subnet Scan>Configure button.
2. Select Limit subnet scan to. Enter a value of 1 for the number of hops.
3. Click Save.
4. From Administration > Discovery > Discovery Methods, select the IP Subnet Scan>Discover Now button. (Make a note of the time when this action was taken.)
5. Wait for the Discovery in Progress indicator to reach 100%.
6. Subnets discovered are available for use in subsequent printer discovery.

MANUAL DISCOVERY USING IP BROADCAST

1. Clear the database by selecting Admin > Discovery > Delete Printers.
2. Click Clear Now.
3. Initiate a manual discovery by clicking the IP Broadcast button. From Administration > Discovery > Discovery Methods, select IP Broadcast > Discover Now. (Make a note of the time when this action was taken.)
4. Wait for the Discovery in Progress indicator to reach 100%.
5. View the results of the discovery on the printer page by displaying the All printers folder. The Discovery Date field for all of the printers listed should have a time approximately equal to the time discovery was initiated.

AUTOMATIC DISCOVERY USING IP SWEEP

1. Schedule a time for automatic discovery to begin.

2. Select Administration > Discovery > IP Sweep and click Configure.
3. Select Enable Scheduled Discovery check box.
4. Set the Next Discovery Date and Next Discovery Time to take place 1 to 2 minutes from the current time.
5. Click Save to apply the changes.
6. Once discovery starts, wait for the Discovery in Progress indicator to reach 100 %.
7. View the results of the discovery on the printer page.
8. Select Printers > All Printers folder.
9. The Discovery Date field for all of the printers listed should have a time approximately equal to the time discovery was initiated.

AUTOMATICALLY RETRIEVING IP ADDRESSES

CWW provides the ability to automatically retrieve a list of IP addresses for IP Sweep discoveries. This functionality allows the user to maintain and modify a file of addresses for the discovery operation. The file format is CSV and CWW provides the option to create a file template. To create a file template:

1. Create a new IP Sweep Discovery by selecting Administration>Discovery>Discovery Methods>New Discovery>IP Sweep and click Continue.
2. In the Addressing Mode section, select the Automatically Retrieve IP Addresses radio button.
3. In the Automatically Retrieve IP Addresses section, click the Troubleshoot button to open the troubleshooting window. In this window, click the Export button to create a file template.
4. Edit the file template by adding one or more IP addresses to the file and saving it.

To retrieve the IP address file:

1. Create a new IP Sweep Discovery, following steps 1 and 2 above.
2. In the Automatically Retrieve IP Addresses section, enter the file name/UNC path for the saved file.
3. Click Retrieve Now.
4. Click Save at the bottom of the window.
5. Navigate to the Discovery Methods window and select this newly-created IP Sweep Discovery.
6. Select Run Discovery Now and verify that the Discovery operation was successful.

IPX PRINTER DISCOVERY METHOD

Xerox CWW also allows you to discover printers using the Internet work Packet Exchange(IPX) protocol. This networking protocol is used by Novell Netware® network operating systems.

Access to the IPX-based discovery methods are disabled (greyed-out) if the IPX networking protocols have not been installed on the CWW server.

To discover printers using the IPX protocol, utilize the IPX Servers or IPX Addresses features of Xerox CWW.

Configuring the IPX Network Scan Discovery feature:

1. On the Administration>Discovery>Discovery Methods page, go to the Actions menu, and select New Discovery.
2. Select the IPX Network Scan selection and click Continue.
3. If you need to schedule this discovery method, expand the Schedule section of this configuration page and set accordingly. You can specify the method of scanning for servers and networks in terms of the number of hops that the scan is limited to.

4. CWW lists the servers and networks identified during the last IPX Network Scan within the Servers and Networks Found section of the Last Scan window.

Configuring the IPX Server Discovery feature:

1. On the Admin>Discovery>Discovery Methods page, go to the Actions menu, and select New Discovery.
2. Select the IPX Server and click Continue.
3. If scheduling this Discovery method is needed, expand the Schedule section of this configuration page and set accordingly.
4. Within the Server for Printer Discovery window, identify the specific server(s) to be used during Discovery by:
   a. Selecting the Specify NetWare Server radio button, and then entering one or more server addresses to use for Discovery, or
   b. Selecting the Choose NetWare Servers from IPX Network Scan radio button and then highlighting specific servers from the IPX NetWare Servers list for Discovery. The last discovery from the IPX Network Scan Discovery populates the list of servers contained within the IPX Network Servers window.

Configuring the IPX Address Discovery feature:

1. On the Admin>Discovery>Discovery Methods page, go to the Actions menu, and select New Discovery.
2. Select IPX Addresses and click Continue.
3. If scheduling this discovery method is needed, expand the Schedule section of this configuration page and set accordingly.
4. Within the IPX Addresses window, the evaluator can limit the discovery process to specific networks, which in turn reduces discovery processing time and resource requirements via the following specification options:
   a. Selecting the Single Address radio button, and then populating the IPX Network and IPX Address fields, or
   b. Selecting the Specific Network radio button and then populating the IPX Network field, or
   c. Selecting the Choose Network from IPX Network Scan radio button and then highlighting specific servers from the IPX NetWare Servers list for Discovery. The last discovery obtained by the IPX Network Scan feature populates the list of the networks contained within the Networks window.
5. Click Add to include the networks as specified above to the Current IPX Addresses list.
6. Save this Discovery method specification by clicking Save.

CONFIGURING THE PRINTER RE-DISCOVERY FEATURE

1. On the Discovery Methods page, go to the Actions menu, and select New Discovery.
2. In the Schedule section, select the Every radio button to turn on Printer Re-Discovery.
3. Use the Next Scheduled Date and Next Scheduled Time settings to specify when the evaluator wants the Printer Re-Discovery to occur.
4. Save the evaluator changes by clicking Save, or exit without making changes by clicking Cancel.

MANUALLY CLEAR ALL PRINTERS FEATURE

1. Click the Administration tab and click the Discovery button to display the Discovery.
2. In the Manually Clear Database window, select All Printers.
3. Clear the database by clicking Clear Databases Now.
4. View the results of the discovery on the printer page.
5. Select the All Printers folder.
6. The software displays the following message: There are no printers to display.

PRINTERS NOT COMMUNICATING FEATURE

Due to the nature of this feature, it may be necessary to conduct this portion of the test after CWW has been running long enough to have a history of printers in the database that are more than one-day-old.

1. Re-run discovery to populate the CWW database.
2. Click the Administration tab and click the Discovery button to display the Discovery.
3. In the Manually Delete Printers window, select the Printers Not Communicating radio button, and set the time equal to 1 day.
4. Select Clear All Devices to clear the database.
5. View the results of the discovery on the printer page.
6. Select the All Printers folder.
7. Any printers that have not communicated for more than one day are removed from the database.

5. Generate a Status Report Using the Reports Function

Note: To evaluate these features, set up the SMTP mail server. If you did not set this up with the CWW Getting Started Wizard, you can go to Administration > Network > E-mail & External Servers and set up the server there.

CWW offers the capability to generate a wide variety of status reports on networked printers. Standard Reports provides pre-defined graphical and tabular reports that meet the requirements of many network administrators. The Standard Report types available are:

GRAPHICAL REPORTS

- Color by Function Usage
- Color Usage
- Function Usage
- Image Sent Usage
- Large Impression Usage
- Faults by Manufacturer Device Count
- Manufacturer Device Count
- Print Model Device Count
- Printer Status Device Count
- Printer Type Device Count
- Summary Condition Device Count

TABULAR REPORTS

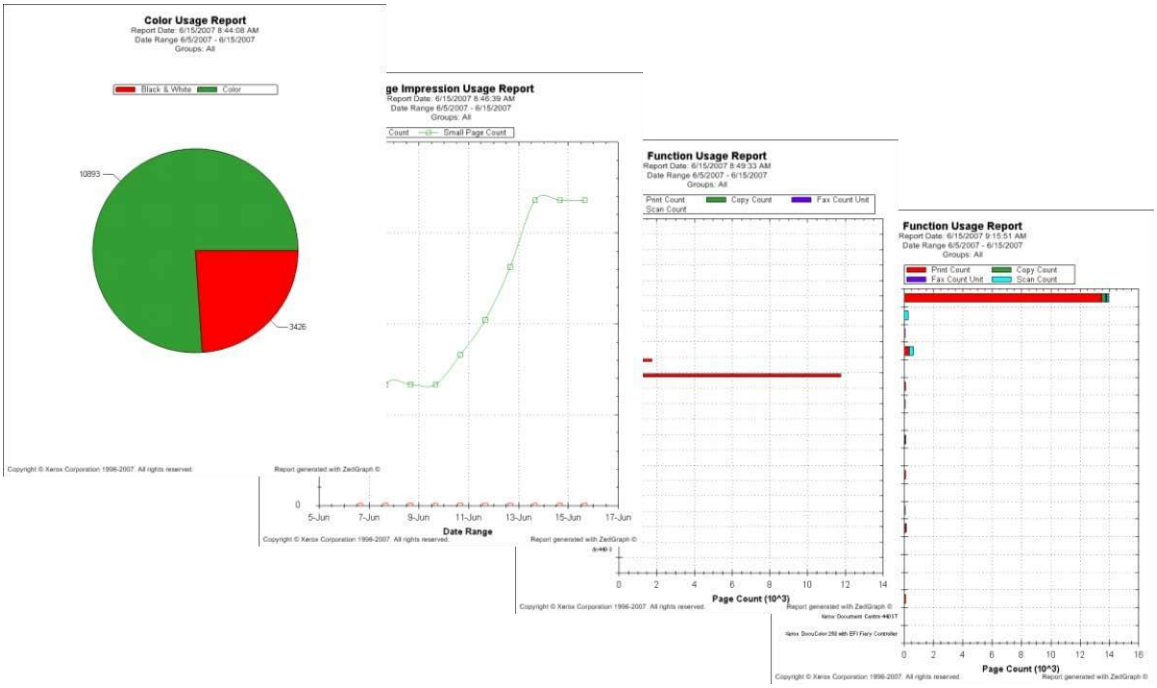
- Printer Asset
- Printer Status
- Usage Counter History
- Alert History
- Job Accounting
- User Summary
- Audit Check
- Fleet Security
- McAfee Embedded Control
- Supply
- Password Audit

Additionally, CWW provides the option to create custom named reports based on the standard reports for your unique system administration needs.

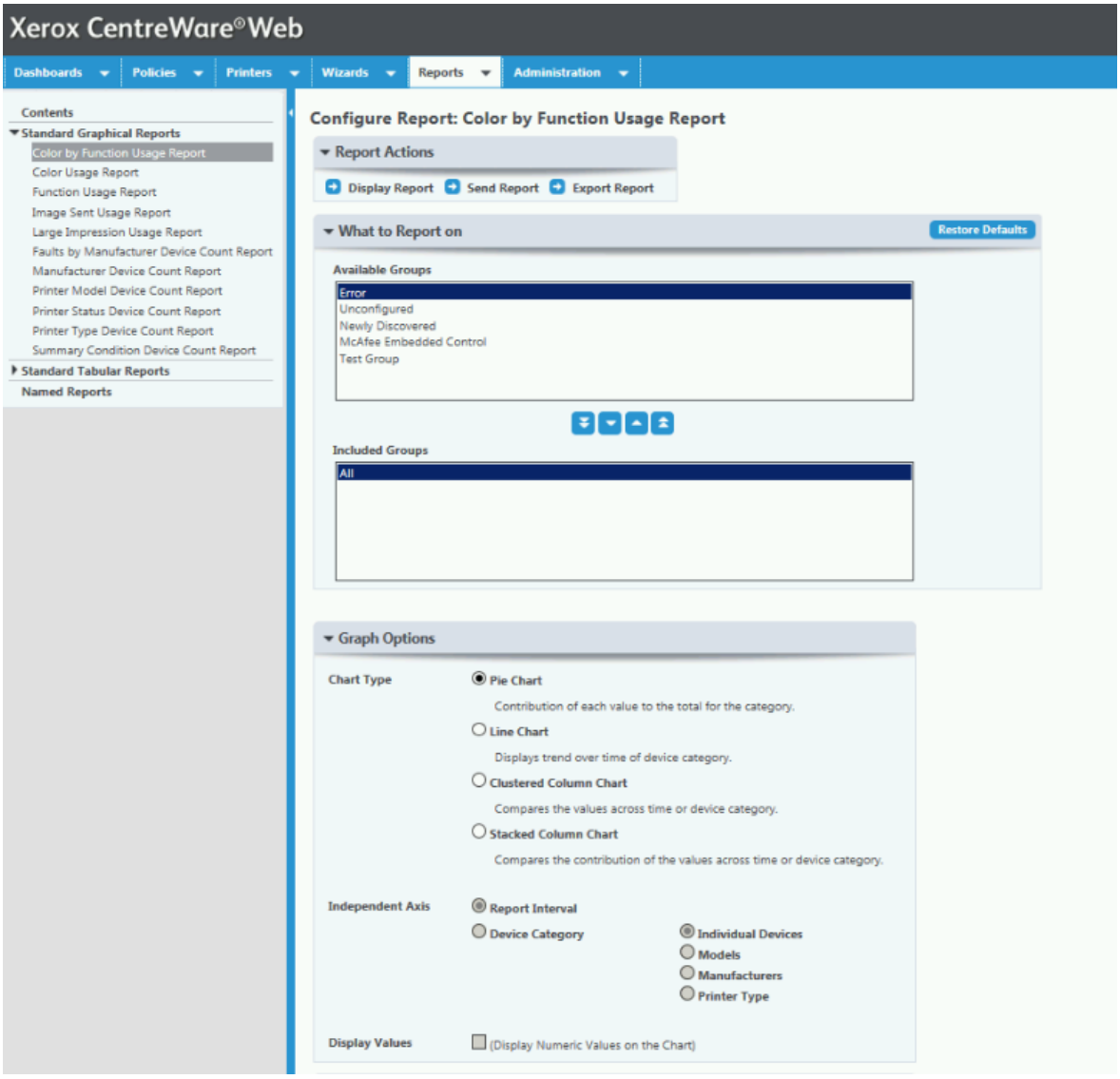
Standard Graphical Reports

You can select from four types of charts, using the Graphical Reports function, based on the type of data or your preferences. The chart types include:

- **Pie Chart** – Displays the percentage of contribution of each parameter to the total on an area basis.
- **Line Chart** – Displays trends.
- **Clustered Column Chart** – Compares the values across time or device category.
- **Stacked Column Chart** – Compares the contribution of the values across time or device category.



You can display graphical reports immediately or send them via an e-mail message. You can access the graph type and configuration settings through the Graph Options window. In the Graph Options window, you can select either the Report Interval (time) or Device Category (devices, models, manufacturers, and type) for the dependent variable. Note that CWW automatically configures the available chart types and dependent variable options as a function of the chosen report.



This example utilizes the Color Usage Report function. For reports to work properly, you must enable the Historical Data function.

1. Select **Administration > Network > Historical Data.**
2. In the History Retrieval section, select the **Every** radio button and enter one in the text field. Click the pull-down menu and select **Days**.
3. In the Next Scheduled Date text fields, enter the current date.
4. In the Next Scheduled Time text fields, enter a time that is approximately one to five minutes later than the current time.
5. Click **Save**.

CWW polls the discovered devices for status based on the time you entered in the Next Scheduled Time field, and save the data to the database. Once the database has been populated, you can now generate reports.

1. Select **Reports>Standard Graphical Reports>Color Usage Report.**

2. The default Group to report on is **All**. To verify this, go to the What To Report On window, and click the **Restore Defaults** button.
3. In the Chart Type Graph Options, select **Pie Chart**.
4. Select the **Display Values** checkbox to add the corresponding values to the chart.
5. In the Time Span window, select **All Data**.
6. In the Report Actions window, select **Display Report** to display the report in a new window. This is useful for checking the report configuration before sending the report.
7. In the Report Actions window, select **Send Report** to send the report via e-mail. (Note there must be at least one e-mail recipient configured in the E-mail Recipients text field for this to function).

The Report Colors window allows you to configure the report in saturated or pastel colors or in black & white patterns. This feature is particularly useful if you want to copy reports in black & white because some colors reproduce in similar grey shades, generating a graph that is difficult to read.

Standard Tabular Reports

Standard Tabular Reports create tables of printer-related data for analysis. To evaluate this function:

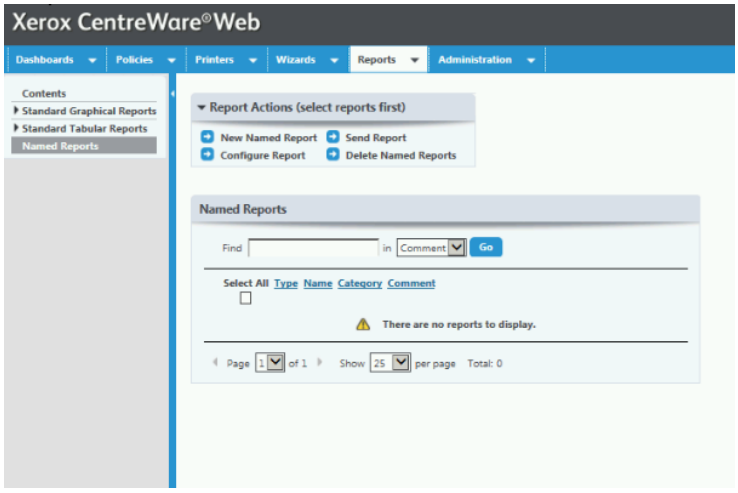
1. Go to the page Count History Report Configuration page by selecting **Reports>Standard Reports>Usage Counter History Report**.
2. In the What To Report On text field, click the **Restore Defaults**. The Included Groups displays the All group.
3. In the Group By text field, select **Printer Model** in the 1st field pull-down box and **No Summary** in the 2nd field pull-down box.
4. In the Included Field text field, select **Restore Defaults**.
5. In the Time Span text field, select **All Data**.
6. In the E-Mail Recipients text field, enter a valid e-mail address and click **Add**. CWW now auto-populate the Current Recipients text field with the e-mail address.
7. In the E-Mail Message Body text field, go to the Subject field and select the **Automatic (Xerox CentreWare® Web Report).** Under Custom Note, select **At Front Of Report Body** and enter **CWW Test Report 1** in the text field.
8. In the Report Format text field, select **All**.
9. In the Schedule Period text field, select **Never**.
10. In the Language text field, select your preferred language.
11. Click **Save** to save your report format and return to the Reports main menu.
12. On the Reports page, select **Usage Counter History Report**.
13. In the Report Actions text field at the top of the page, select **Send Report**.
14. Wait a sufficient amount of time for the e-mail with the subject Xerox CentreWare® Web Usage Counter History Report to arrive at the recipient's inbox.
15. View each of the report attachments contained in the e-mail message and verify that there are three reports: a CSV file, an HTML file, and an XML file. Also, verify that the poll date listed in the reports is approximately the time entered in the Next Scheduled Time text field when you enabled the Historical Data.

Named Reports

With Named Reports, you can use the standard reports as templates or create custom reports. You also determine the information that is most important to you and organize the reported data to meet your needs. Named Reports are available in both the Graphical Report and Tabular Report formats.

To test Named Reports:

1. Select **Reports>Named Reports**. The Named Reports window opens:



2. From the Report Actions section, select **New Named Report** to open the New Named Report window.
3. In the Create New Report Based Upon window, go to the Category pull-down menu and select **Tabular or Graphical**. For this exercise, select **Tabular**.
4. In the Create New Report Based Upon section, go to the Type pull-down menu, and **select Status Reports**.
5. Select the desired report template type and click **Continue**. For this exercise, select **Printer Status Report** (Standard).
6. The Configure Report window opens. In the General Properties section, go to the In the Name text field and enter **Custom Status Report**. In the Comment text field, enter **Test Report**.
7. In the Included Fields window, click the left arrow to remove the Queue Name and Queue Status entries.
8. In the New Recipients text field, enter a **valid e-mail address** and click **Add**.
9. In the E-Mail Message section, select the Custom radio button for the subject and enter **Custom Status Report Test** in the text field.
10. For the Custom Note, select the **None** radio button.
11. In the Report Format section, go to the pull-down menu, and select **All**.
12. In the Schedule Period window, select the **Once** radio button.
13. In the Next Scheduled window, click the Calendar icon, and select **today's date** from the Time pull-down menu, select a time that is close to, but not earlier than, the current time. You can choose times in increments of 15 minutes or more.
14. In the Language text field, select the desired language and then click **Save**.
15. At the specified time, CWW sends an e-mail message with three attachments, one in each reporting format. Open these attachments and verify that CWW generated the reports properly.

6. Custom Properties

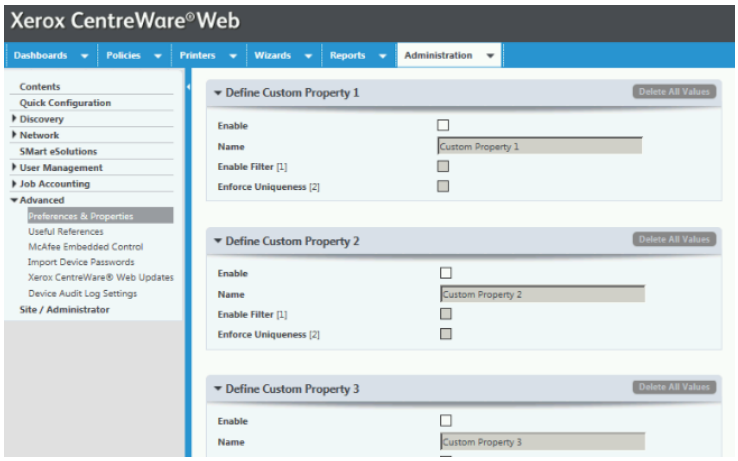
The Custom Properties feature allows you to define your unique properties and assign them to printers. This is another tool that you can use to manage devices in your specific environment, enabling you to sort and filter information that is critical to you.

Enabling and Defining Custom Properties

In this example, we first define some custom properties and then assign them to printers.

To access the Custom Properties:

1. Select **Administration>Advanced>Preferences & Properties**.
2. Scroll down to the Define Custom Properties 1 section and select **Enable**.
3. In the Name text field, enter the property name. For this example, enter **Team**.
4. At the bottom of the page, click **Save**.



Now that you have defined a custom property, we can assign custom properties to individual printers. In this example, we assume that printers are assigned to three specific work teams: the Red, Green, and Blue teams. You can assign custom properties via the Printers>Edit Asset Properties page.

1. From the task bar, select the **Printers>Printers>All**. CWW displays the All group of printers.
2. Select a printer's detail page by clicking the **magnifying glass** or its **IP address**.
3. In the Edit Actions text field, select **Edit Asset Properties**.
4. In the Custom Properties text field, enter **Red** for the team name.
5. Click **Save**. CWW returns to the printer detail page.
6. Click **Back** at the bottom of the page. CWW returns to the All printers page.
7. Choose a second printer and assign it a custom property of Red.
8. Choose a third printer and assign it a custom property of Green.
9. Choose a fourth printer and assign it a custom property of Blue.

Printer Sort Feature

This feature allows you to sort printers based on the custom properties assigned to them.

1. Return to the printer display group by selecting **Printers>All**.
2. In the Printers Table, select **Table Preferences**. Use the arrow keys to move Add Team (Custom) field to the Included Fields.
3. The four printers should have the phrases Red, Green, and Blue displayed in the Team field.
4. Test the Field sort capability by highlighting and selecting the **Title** column heading. CWW sorts the group in ascending order based on the value in the Team field. Printers that do not have data in the Custom Property 1 field are first in the list followed by the printers that have Blue, Green, and Red in this field.
5. Click the Team field column heading again to sort the list in descending order.

Enable Filter Feature

Enable Filter allows CWW to display filter list selections on the Printers tab, so you can quickly filter printers based on their custom properties

1. On the Administration page, select **Custom Properties** to turn on Enable Filter for Custom Property 1.
2. For Custom Property 1, select the **Enable Filter** check box.
3. Click **Save** at the bottom of the screen to apply the change.
4. Select the **Test 1** folder to return to the Test 1 printer display.
5. The CWW Evaluation field should now have a drop-down menu under the Team heading with the following selections:
   a. All
   b. Blue
   c. Green
   d. Red
6. In the CWW Evaluation section, select **Red** from the pull-down menu. CWW displays the two printers with the phrase Red in the CWW Evaluation field.
7. CWW displays the two printers with the phrase Red in the CWW Evaluation field.

Enforce Uniqueness Feature

Enforce Uniqueness ensures that the custom field value is unique for every printer. To turn on Enforce Uniqueness for Custom Property 1:

1. Choose **Administration>Advanced>Preferences & Properties** page, and select **Custom Properties**.
2. In the Define Custom Property 1 section, select the **Enforce Uniqueness** check box.
3. Click **Save** to apply these settings.
4. CWW shows the following error messages because two of the printers in the CWW database have the value of red in the Custom Properties 1 text field and because you have enabled Filter and Enforce Uniqueness.

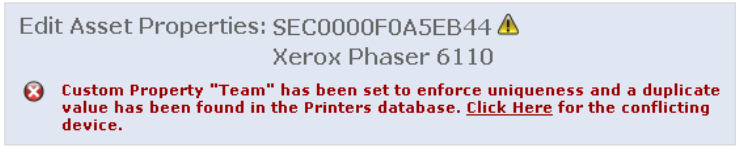
Preferences & Properties
Custom Property 1 cannot have both a Filter and Enforced Uniqueness enabled.
Custom Property 1 has been set to enforce uniqueness and a duplicate value has been found in the Printers database.

This procedure allows you to detect non-unique entries when entering data while the Enforce uniqueness feature is on. You can eliminate the non-unique situation by removing red from the CWW Evaluation text field in one of the conflicting printers in the All group.

1. Choose **Administration>Advanced>Preferences & Properties**, and select the **Enable Filter** check box for Custom Property 1 (Team).
2. Select **Printers>All** to display the All group.
3. Select the IP address of one of the offending (Red) printers.
4. Select **Edit Asset Properties** to enable changing of the Custom Properties field.
5. From the Custom Properties text field, delete **Red**.
6. Click **Save** to apply this change.
7. Choose **Administration>Advanced>Preferences & Properties**, and select the **Enforce Uniqueness** check box for Custom Property 1 (Team).
8. Select **Administration>Custom Properties** to display custom properties.
9. Click **Save** to apply these changes.

Now create a non-unique situation in the CWW Evaluation field.

1. Select **Printers>All** to display the All Printer group.
2. Select the IP address of a printer that has a blank Custom Properties (Team) field.
3. Select **Edit Asset Properties** to enable changing of the Custom Properties (Team) field.
4. In the CWW Evaluation text field, enter the phrase, **red team** (note the use of lowercase in this example).
5. Click **Save** to apply this change.
6. The Edit Properties window displays the following warning:


Edit Asset Properties: SEC0000F0A5EB44
Xerox Phaser 6110
Custom Property "Team" has been set to enforce uniqueness and a duplicate value has been found in the Printers database. Click Here for the conflicting device.

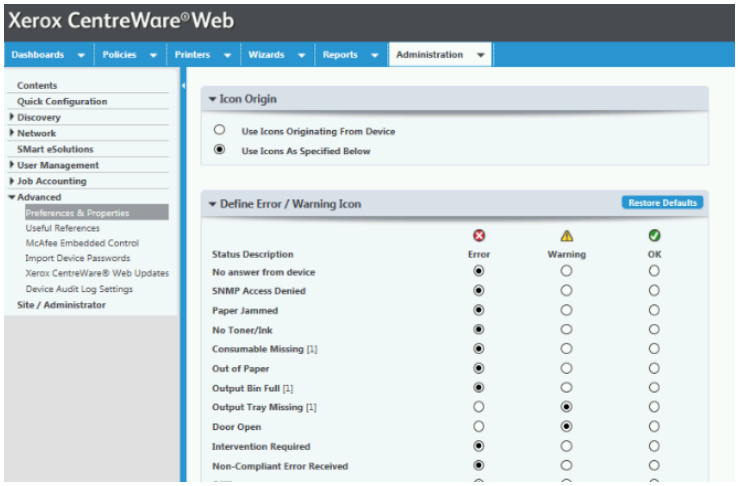
Error/Warning Icon Settings

The Define Error/Warning Icon feature lets you specify severity levels for a number of printer alert conditions. CWW detects a total of 21 alert conditions. For each of these alerts, you can specify whether they are displayed as an error condition, as a warning, or as OK. You can configure these settings via the dashboard on the Administration Preferences & Properties page.

To evaluate this feature, perform the following steps:

1. Select an evaluation printer that is in the All printer group and has a convenient location.
2. Using the evaluation printer, verify that it is a member of the All Printers group and ensure that it is in an Up and Running status condition.

3. Display the Error/Warning set-up page by selecting **Administration>Advanced>Preferences & Properties**.
4. Verify that the **Use Icons Originating From Device** radio button is selected.
5. Place the evaluation printer in a Door Open condition.
6. Using CWW, display the test printer's detailed status by clicking on its **IP Address** from within the All Printers group.
7. Select the **Refresh Status** button to obtain the current status for the test printer.
8. Verify that CWW displays the device's error condition and corresponding icon.
9. Close the door on the evaluation printer and verify that it is in an Up and Running Status condition.
10. Display the Error/Warning set-up page by selecting **Administration>Advanced>Preferences & Properties**.
11. Select the **Use Icons As Specified Below** radio button.
12. Repeat the next sequence of steps first setting the Door Open status condition to Error then to Warning and then to OK.
13. In the Define Error/Warning Icon table, select the Error radio button for Door Open.



14. Place the evaluation printer in a Door Open condition.
15. Using CWW, display the test printer's detailed status by clicking its **IP Address** from within the All Printers group.
16. Select the **Refresh Status** button to obtain the current status for the test printer.
17. Verify that the device's error condition is **Error** and the red X icon is displayed.
18. Close the door on the evaluation printer and verify that it is in an Up and Running Status condition.
19. At the conclusion of this test, return the Icon Origin setting to Use Icons Originating From Device.

7. Printers Features

Printers Overview

The Printers page displays information about printers on the network and allows you to create and manage print queues and custom groups and assign printers to those groups. You can conduct troubleshooting tests on single printers or groups of printers from these pages.

How to Evaluate Printers Features

This section focuses on the printer-related functions illustrated below.

You only see the SMart eSolutions Group in the Printers navigation tree after it is enabled. Reference the Administration section for details on how to enable this feature. The SMart eSolutions feature is further discussed in Administration Functions and Configuring SMart eSolutions.

Prerequisites for This Evaluation

In order to evaluate the Printers feature, you must have completed a discovery in CWW and obtained data from one or more printers as a result. If there are no printers displayed in the All Printers group, return to the procedure to re-run discovery in IP Sweep.

Many of the evaluations from this point forward require you to enable a trap-supported printer. The majority of current Xerox® printers support SNMP traps.

To determine if a specific printer supports traps, either open the detailed printer page and view the printer status related to traps, or configure the Printers>Table Preferences to display Traps Supported as a column in the printers view.

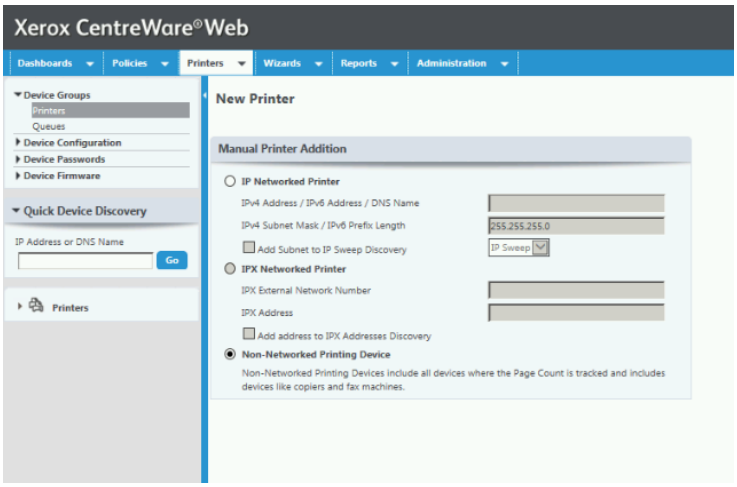
New Printer Function

The New Printer function manually adds printers to the CWW database. Printers can be specified as either Networked or Non-networked.

ADD NEW NON-NETWORKED PRINTER DEVICE

To evaluate this feature, perform the following.

1. Display the New Printer page by selecting the New Printer icon within the Printers navigation tree.
2. Select the Non-Networked Printing Device radio button.
3. Select Continue. The New Non-Networked Printing Device page is displayed.



For non-networked printers, several data fields such as System Name, Location, Page Count and others can be manually entered. Once entered, this data then becomes part of the CWW database.

In addition to being an efficient way to manage non-networked printers and copiers, it is possible to then generate monthly billing meter reports using the Import and Export page counts function.

ADD NEW NETWORKED PRINTER DEVICE

To evaluate this feature, perform the following:

1. Display the New Printer page by selecting the **New Printer** icon within the Printers navigation tree.
2. Select the **IP (or IPX) Networked Printer** button, depending on the site topology.

If the IPX Networked Printer is grayed out, then the IPX protocol stack is not enabled on this server. This is expected behavior if Novell IPX (not IP) is not in your print environment. If you know your environment IS utilizing Novell IPX (not IP) you need to install the Novell IPX stack on the CWW server to allow IPX functionality.

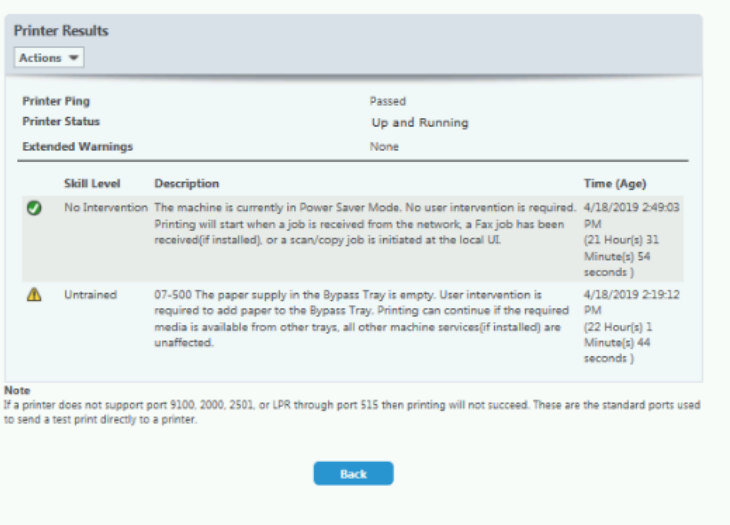
3. Enter the printer's IP Address and Subnet Mask values in the corresponding data entry fields.
4. From SNMP Access, select SNMP v1/v2 (most printers) or SNMP v3. For SNMP v3, enter the SNMP access, and authentication information for the printer. Enter a context name if required.
5. Select **Continue**.
6. At this point, the specified printer is accessed and added to the CWW's database if it is a valid SNMP compliant printing device.
7. Return to the All printer group by selecting the **All** printer icon within the Printers navigation tree.
8. Verify that the newly added printer is listed in the All printer group.

Troubleshooting Function

By selecting a printer and clicking on the Troubleshoot button, CWW performs a Printer Ping test and return the test status. This is displayed in the Troubleshoot Device window. To evaluate this feature, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.
2. Choose one of the printers in the All Printers list by clicking on the selection box associated with that printer. (For now, avoid selecting any printers whose status is Not Communicating.)

3. Select the Troubleshoot button from within the Printer Actions window.
4. At this point, a Troubleshoot All section displayed followed by a Troubleshooting in Progress section.
5. The Troubleshooting Results in the Troubleshooting in Progress window displays the results of the Printer Ping test along with printer information including System Name, IP Address, Description, Server Name, Share name and Printer Status.


Printer Results
Actions
Printer Ping
Passed
Printer Status
Up and Running
Extended Warnings
None
Skill Level
Description
Time (Age)
No Intervention
The machine is currently in Power Saver Mode. No user intervention is required. Printing will start when a job is received from the network, a Fax job has been received(if installed), or a scan/copy job is initiated at the local UI.
4/18/2019 2:49:03 PM (21 Hour(s) 31 Minute(s) 54 seconds)
Untrained
07-500 The paper supply in the Bypass Tray is empty. User intervention is required to add paper to the Bypass Tray. Printing can continue if the required media is available from other trays, all other machine services(if installed) are unaffected.
4/18/2019 2:19:12 PM (22 Hour(s) 1 Minute(s) 44 seconds)
Note
If a printer does not support port 9100, 2000, 2501, or LPR through port 515 then printing will not succeed. These are the standard ports used to send a test print directly to a printer.
Back

6. By selecting the Details/Test button from within the Troubleshooting Results window, three additional troubleshooting features are provided.
7. Printer Web page opens up a separate browser window to display the printer's embedded web server. The Printer Web page function is also accessible from the printer's Detailed Status window.
8. A test print can be generated on the printer by selecting the Print Direct Test button.

This test does not succeed if the printer does not support port 9100, 2000, or 2105 or LPR through port 515 (typically used for LPR).

9. Reset Printer reboots the printer.

TROUBLESHOOT MULTIPLE PRINTERS

To evaluate the Troubleshoot feature for multiple Printers, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.
2. Choose a number of printers to be tested by selecting the check boxes in the All printers group table view window.
3. Activate the Troubleshoot feature by selecting the Troubleshoot button.
4. Wait a sufficient time for the tests to complete. Observe the Current Progress indicator.
5. When the tests complete, the results for each printer are displayed in the Troubleshoot Results window. To perform more advanced tests, select the Details/Test button in the Troubleshoot Results window. This links to the Troubleshoot Device feature as described in the Troubleshoot single printer above.
6. Selecting the Back button on the Troubleshoot Device window returns to the Troubleshooting Results window. Proceed with tests on the rest of the printers.

Traps

An SNMP Trap is an unsolicited alert notification that a significant event has occurred on a network device. CWW provides trap configuration modifications such as registering for Traps, clearing Traps for the CWW server, and clearing all Traps in the printer (for all registered servers). Within CWW, Traps are configurable on an individual printer and a per-group basis. CWW also provides the ability to register for Traps for all newly discovered printers, as an alternative to registering for Traps on an individual printer or per-group basis, with one convenient step in the SNMP Trap Settings area of the CWW Administration section. This feature is discussed in the SNMP section of the Administration portion of the document.

Not all printers support traps. Trap actions are ignored for printers that do not support traps.

MODIFY TRAP

The Modify Trap feature provides per-group configuration of the following features:

- **Register for Traps**: Registers the CWW application to receive Trap alerts from printers which support Traps.
- **Clear Traps for this Server**: Clear the Traps registered with the local server upon which CWW has been installed.
- **Clear All Traps in Printer** (for all server destinations): Clears all Traps that are displayed within CWW for the associated printers, regardless of server.

Selecting this un-registers all the Traps which are displayed; not just those registered with the local server.

Modify Trap Feature

1. Display the All Printers group by selecting All from the Printers navigation tree. Use the Table Preferences feature to display the Traps Supported column.
2. Choose one or more of the printers in the All Printers list by clicking on the selection box(s) associated with that printer. Be sure to select a printer(s) that supports Traps.
3. To verify a printer supports traps a user can check the Table Preference column for Traps Supports = YES.
4. Select a Printer and use the magnifying glass icon to view Printer Properties. If Traps are supported or unsupported it appears on printer's properties page.
5. Select the Modify Traps button from within the Printer Actions window. The Modify Traps page displays the following three options:
   a. Register for Traps
   b. Clear Traps for this Server
   c. Clear All Traps in Printer (for All Destinations)
6. In this case, select Register for Traps by clicking on the associated radio button and then click on the Confirm button.
7. The display returns to the All Printers page. At this point, all of the printers selected in step #2 above (which support Traps) now are registered to receive the Traps specified by the individual printer manufacturer.

The process to evaluate Clear Traps for this Server and Clear All Traps in Printer is similar to the steps described above. To view the behavior of CWW when a Trap is received, perform the following:

1. Force a printer with physical access, that is both trap supported and registered, into a fault condition. For example, open a door or a paper tray on the printer. (In this case, select a printer displaying a green Icon and a Printer Status of Up and Running).

2. Upon returning to the computer, notice within a minute or two on the All Printers page that the printer Icon has now changed from green to yellow or red and that the Printer Status has changed from Up and Running to a Trap detected fault status.

Additional information on Evaluating Traps can be found in Edit Traps.

Alert History

Whenever CentreWare® Web reads the status on a device, all alert conditions are registered. The Alert History feature saves and displays all alerts collected over a period of time. Retaining an Alert History allows easy identification of problem devices.

To evaluate the Alert History feature, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.
2. Display the Group Configuration page for the All group by selecting Configuration from the Group Actions window.
3. Display the Configure Group Properties page by clicking the Properties Configure button.
4. In the Status Retrieval window, select the Every radio button and set the time period.
5. Select the Full Status radio button.
6. In the History Retrieval window select the Every radio button and set the time period.
7. Enter the Next Scheduled Date and Next Scheduled Time and check the Collect Alert History checkbox.
8. Click Save.
9. Return to the Printers > All page and display the detailed status for a printer by clicking on its IP Address.
10. Force the printer to multiple fault conditions (Out of paper, Door open, etc) and select the Refresh Status button.
11. Select Alert History.
12. Repeat the above two steps periodically.
13. The list of Alerts should show all alerts that occurred over the period; even if the alert conditions no longer exist.

Printer Status History

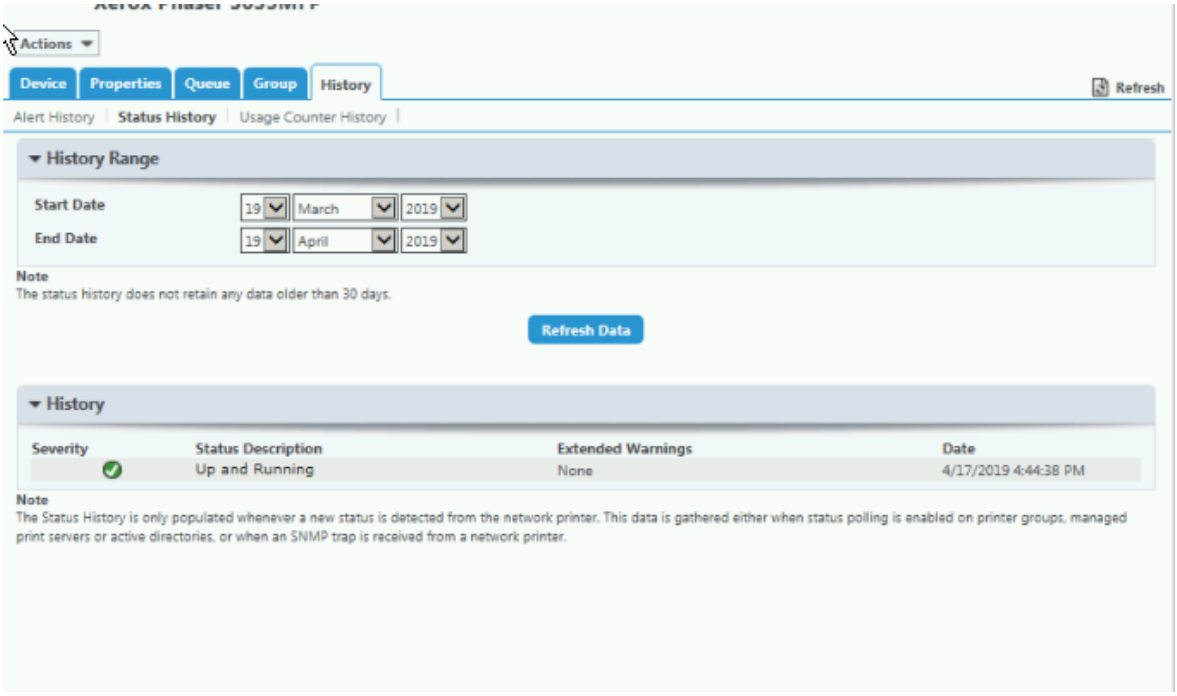
Whenever CentreWare® Web reads the status on a device, in addition to alert conditions which CentreWare® Web is sensitive to, the Status History retrieves detailed device status information generated by the device's internal sensing logic. Some of this is informational and may not directly impact CWW alerting. Retaining a Status History in conjunction with the Alert History allows easy identification of problem devices.

To evaluate the Status History feature, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.
2. Display the Group Configuration page for the All group by selecting Configuration from the Group Actions window.
3. Display the Configure Group Properties page by clicking the Properties Configure button.
4. In the Status Retrieval window, select the Every radio button and set the time period.
5. Select the Full Status radio button.
6. In the History Retrieval window select the Every radio button and set the time period.

7. Enter the Next Scheduled Date and Next Scheduled Time and check the Collect Alert History checkbox.
8. Click Save.
9. Return to the Printers > All page and display the detailed status for a printer by clicking on its IP Address.
10. Force the printer to multiple fault conditions (Out of paper, Door open, etc) and select the Refresh Status button.
11. Select Status History.
12. Repeat the above two steps periodically.

A Status History for a typical printer is shown.



Display Preferences Feature

The Display Preferences feature allows users to customize the printer table to their particular needs and preferences. You may select which fields are displayed and their order of appearance. To configure the Printers table:

1. In the Printers page, select the **All** printer group.
2. Display the Preferences section by selecting the **Table Preferences** button at the top of the Printers table view.
3. The Display Fields window and its two sub windows, Included Fields and Available Fields specifies which fields are displayed for the selected group.
4. By highlighting a field in the Available Fields sub window and selecting the ▸ button, that field moves to the Included Field.
5. To remove a field from the Included Fields sub window, highlight it and select the ◂ button.
6. To move all fields from one sub window to the other, select the ▶▸button or the ◂◂ button.

7. To change the order in which the fields are displayed, highlight a field in the Included Fields sub window and select either the **Move Up** or the **Move Down** button to change its position in the list.
8. To test this feature, move one or more fields into the Included Fields sub window, rearrange the order and select **Save**.
9. Return to the All printers group to verify that the table fields and order are in accordance with the settings.
10. To restore the display to the default settings, return to the Preferences page, select **Restore Defaults** and then select **Save**.

Table Scrollbars Feature

The Table Scrollbars feature allows you to quickly scan through a table. To enable the Table Scrollbars feature:

1. Select the **Table Preferences** button at the top of the Printers table view.
2. Check the **Enable** checkbox within the Table Scrollbars window.
3. In this case, leave the default Width and Height pixel settings at 600 and 400 respectively.
4. Select the **Save** button.
5. The display returns to the main display for All Printers, notice now that the table view contains scrolling bars for enhanced viewing capabilities.

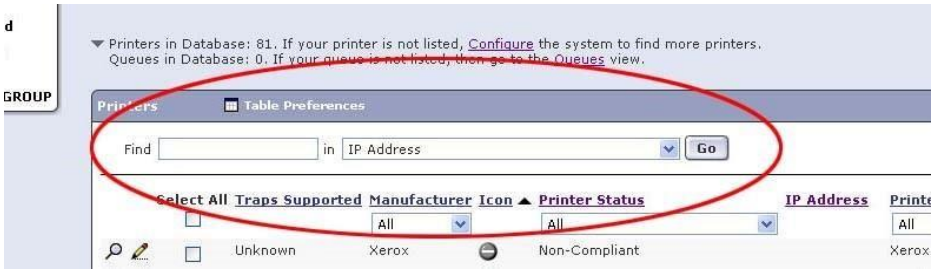
By changing the Preferences settings for one group, the same settings are applied to all groups with the exception of the SMart eSolutions group, certain fields are always present on this group.

6. Select the **Table Preferences** button at the top of the Printers table view and select **Restore Defaults** in the Table Scrollbars window.
7. Select the **Save** button.

The display returns to the main display for All Printers. The table returns to its default appearance without scrollbars.

Find and In

The Find and In feature of the Printers table provides an easy method to access the data for any device. This is particularly useful as the number of devices within a group is large. The In pull-down contains over 100 different fields to search on, making CWW's Find/In feature extremely powerful.



TO USE THE FIND AND IN FEATURES

1. Display the All printers group by selecting **All** from the Printers navigation tree.

2. Using the Find field, enter a string of characters that selects only a subset of the printers in the group. Then select a logical table preference filter from the In pull-down. For example, if All contains both Xerox and HP printers:
   a. To view only the Xerox printers, type **Xerox** in the **Find** field.
   b. Then select **Manufacturer** from the **In** pull-down.
   c. Select **Go**.
3. Printers displayed contains any printers where the word Xerox was found in the Manufacturer fields.
4. Construct other searches (Using partial phrases or numbers) to further evaluate the Find feature.
5. To redisplay all printers, click the **Reset View** button.

Sort by Column Feature

The Sort by Column feature allows you to sort all of the printers based upon the parameter displayed in that column. Sorts may be performed in ascending or descending order as desired.

To use this feature:

1. On the Printers page, select the **All** printer group.
2. Click the IP Address heading in the Printers window to sort the listed printers by IP Address.
3. Verify that the printers are listed in ascending order by IP Address.
4. Clicking the **IP Address** heading again sorts the printers in descending order by IP Address.

Note: Notice that a small Up arrow and Down arrow appears on alternate clicks indicating the order in which the list has been sorted.

5. Verify that the printers are listed in descending order by IP Address.
6. In a similar fashion, any displayed column can be sorted.
7. To reset the sorting, click the **Reset View** button.

Automatic Filtering

Automatic Filtering lets you quickly identify printers meeting specific criteria using predefined characteristics. Several of the column headings in the Printers table such as Printer Status, Printer Type and Printer Model, etc. support automatic filtering. To use this feature:

1. In the Printers page, select the **All** printers group.
2. Notice the pull down menu beneath the Printer Status and Printer Type column headings in the Printers window. These pull down menus contain a list of all printer status states and printer types identified for the group listed.
3. From the Printer Type pull down menu, select one of the printer types.
4. Note that only those printers that match the selected printer type are displayed.
5. From the Printer Type pull down menu, select **All**.
6. Verify that all of the printers noted in step 1 are again displayed.

Edit Actions

The Edit Actions box lets you quickly and easily edit and modify properties associated with a specific device. These functions are accessed through the Detailed Properties page for a device. The properties that can be edited include:

- Asset Properties
- Default Settings
- Protocol Properties
- Scan Services
- Security Properties
- Job Accounting Properties

HOW TO USE THIS FEATURE

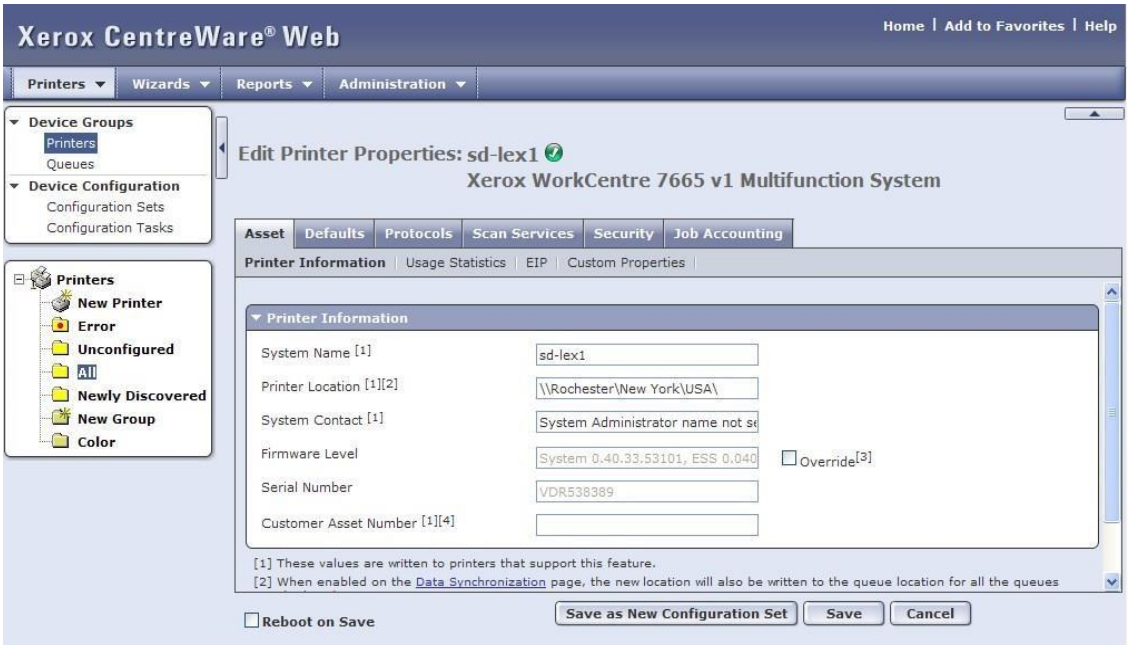
1. Select a device from any printer Group.
2. Select the desired **Edit Properties** action from the Edit Actions box.

Note: Selecting any specific Edit Properties Action displays the specific Properties tab, but you can then select any properties available in the tabs provided for all other Edit Properties.

3. Go to each section of properties requiring an edit.
4. Make the change.
5. Select **Save** to set the edited configuration on the device or select **Cancel** to go back to the device detailed properties page.

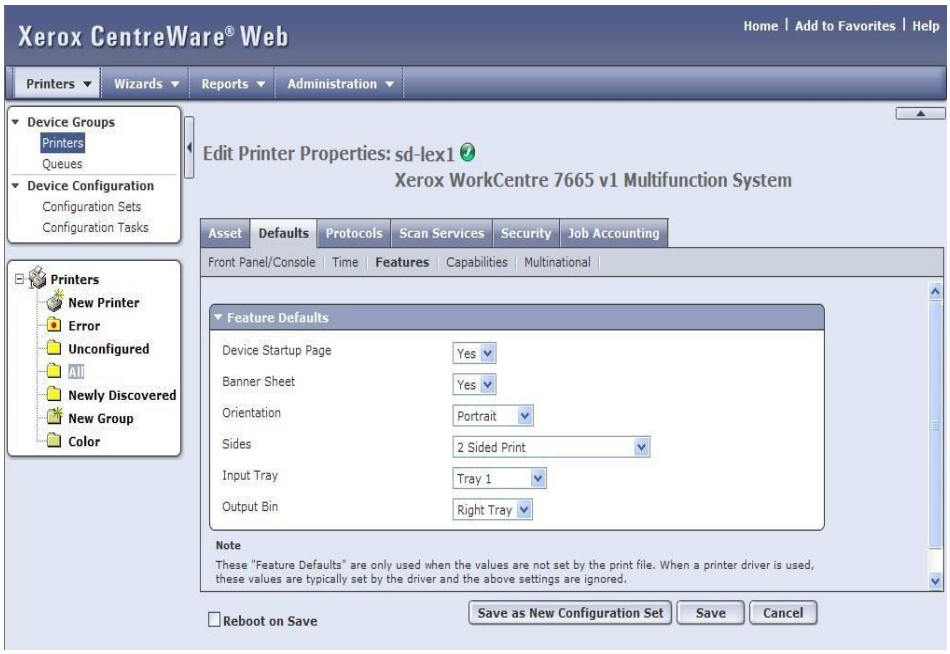
EDIT ASSET PROPERTIES

The Edit Asset Properties action displays the Asset Properties tab. The Asset Properties tab includes properties for setting Printer Information, Extensible Interface Platform configuration, and Custom Properties of the device.



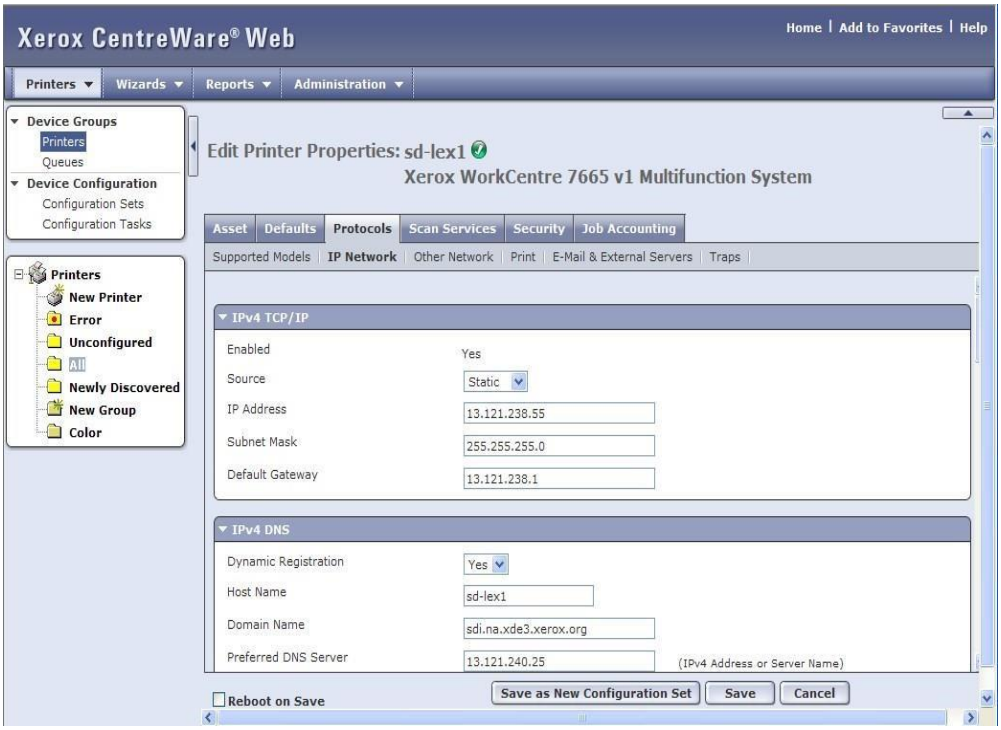
EDIT PRINTER DEFAULT PROPERTIES

The Edit Printer Default Properties action displays the Defaults Properties tab. The Defaults Properties tab includes properties for setting Front panel/Console access, device time attributes, Feature Defaults, Multinational, and Finishing Capabilities of the device.



EDIT PROTOCOL PROPERTIES

The Edit Protocol Properties action displays the Protocol Properties tab. The Protocol Properties tab includes properties for setting up Networking, Name Resolution, and Print protocols as well as setup for E-Mail, Proxy, and LDAP servers. SNMP Trap configuration is also configured on the Protocols properties tab.



EDIT TRAPS

The Edit Trap feature in CWW sets Trap configuration on an individual printer basis, and views the registered Traps specific to the selected printer. Via table format, the information presented is as follows:

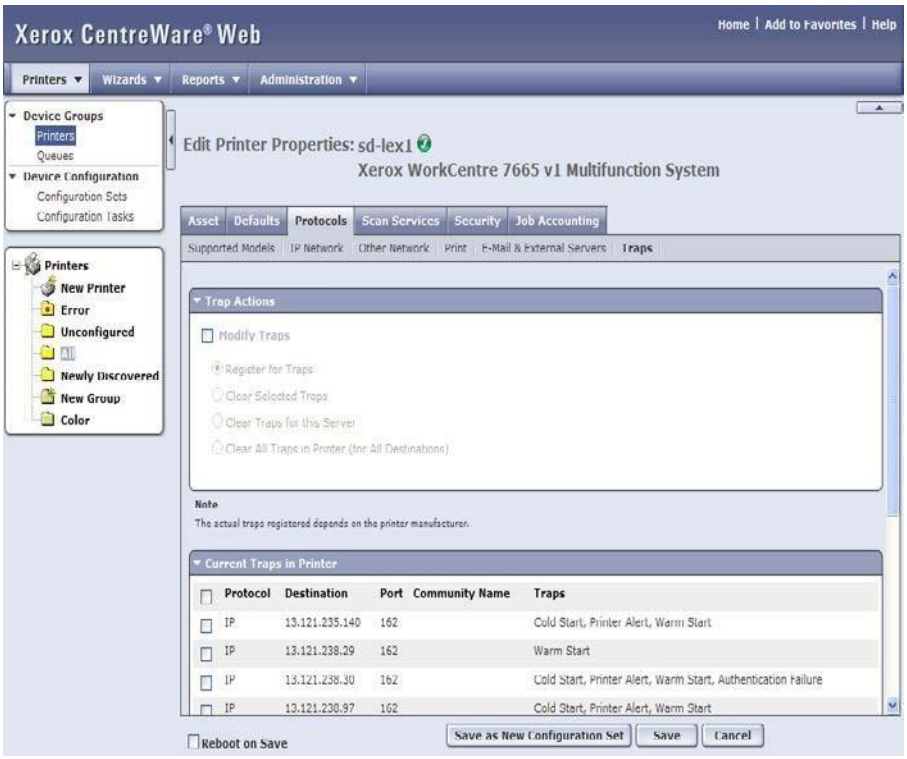
- **Network Protocol:** IP, IPX
- **Trap Destination**: CWW server (or any other SNMP manager) for which trap is registered
- **Port typically**: 162
- **Traps type**: coldstart, warmstart, link up/down, authentication failure or all:Pass Everything

Additionally, the Edit Trap feature performs individual printer configuration of the following features:

- **Register for Traps**: Registers the CWW application to receive Trap alerts from the selected printer. The printer must support Traps.
- **Clear Traps for this Server**: Clear the Traps registered with the local server upon which CWW has been installed.
- **Clear All Traps in Printer** (for All Destinations): Clears all Traps that are displayed within CWW for the associated printers.

Selecting this de-registers the CWW server from receiving all the Traps which are displayed not just those registered with the local server.

- **Clear Selected Traps**: Clear specifically identified Traps.



SETTING EDIT TRAP

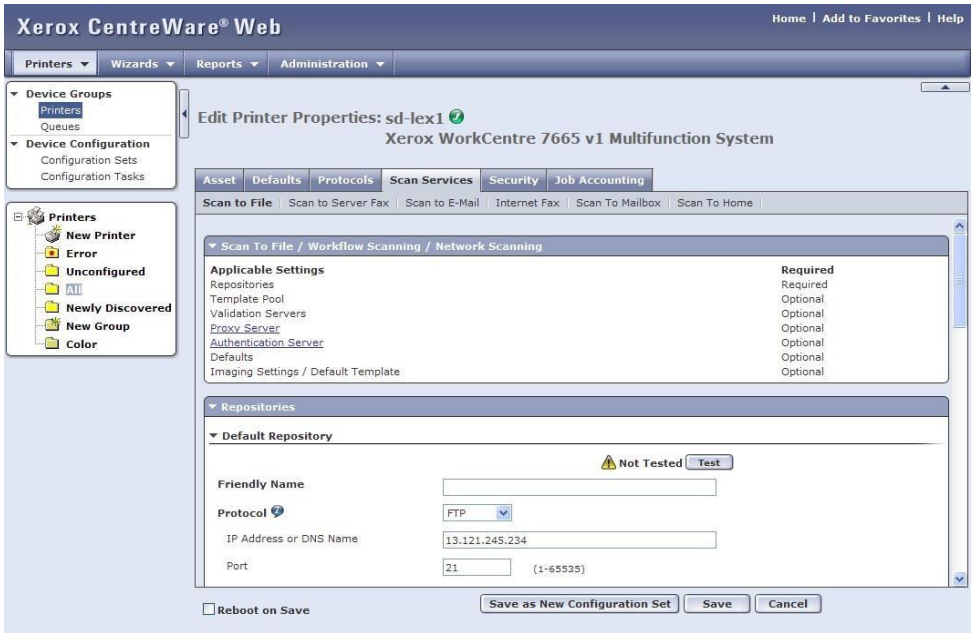
Display the All Printers group by selecting All from the Printers navigation tree. Use the Table Preferences feature to display the Traps Supported column.

1. Select a printer by clicking on the selection box(s) associated with that printer. Be sure to select a printer(s) that supports Traps.
2. Select the display icon to display the printer properties page.
3. On the printer properties page, select Edit Traps from within the Printer Actions window.
4. The Edit Traps page is displayed presenting the following four options:
   a. Register for Traps
   b. Clear Selected Traps
   c. Clear Traps for this Server
   d. Clear All Traps in Printer (for All Destinations)
5. In this case, select Clear Traps for this Server by clicking on the associated radio button and then click the Confirm button.

Once the CWW application completes processing, notice that the Current Traps field in the Printer table is updated to now show that the printer is no longer configured to receive Traps.

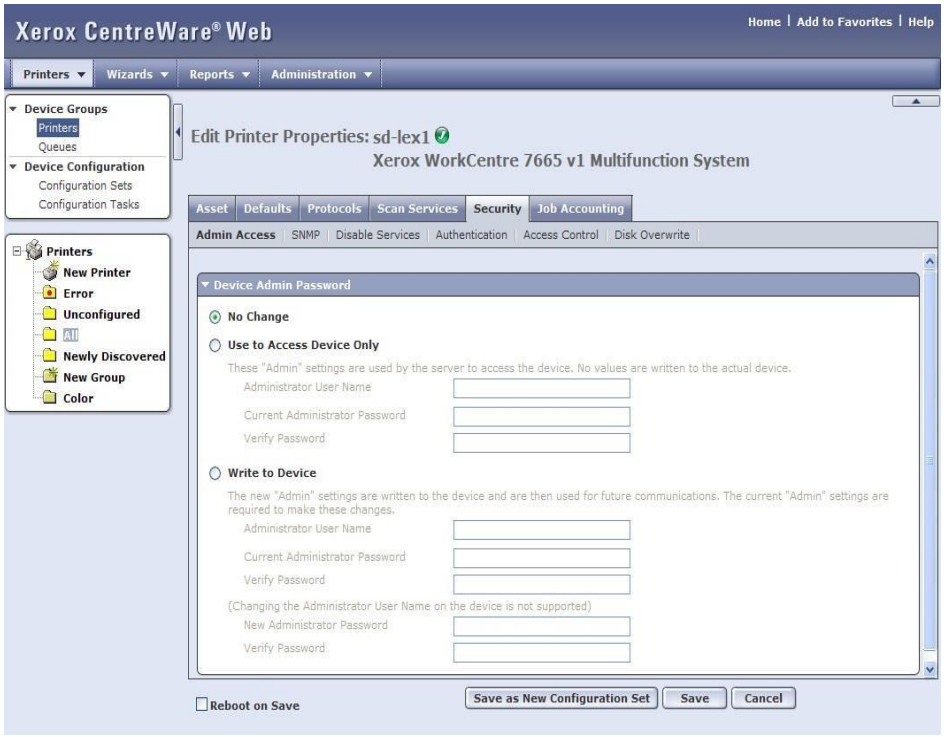
EDIT SCAN SERVICES

The Edit Scan Services Properties action displays the Scan Services Properties tab. The Scan Services Properties tab includes properties for setting up Multi-Function Device (MFD) Scanning features. This includes setup of Scan to File, Server Fax, E-Mail, Internet Fax, Mailbox and Scan to Home scanning services.



EDIT SECURITY PROPERTIES

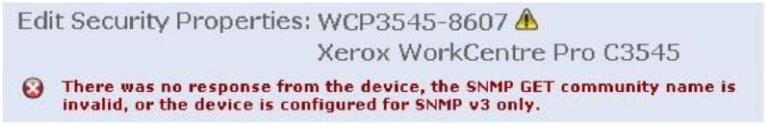
The Edit Security Properties action displays the Security Properties tab. The Security Properties tab includes properties for setting a device admin password, SNMP communication settings, quick Service disablement, Access control, and Authentication Settings. You can also set Disk overwrite settings.



Device Admin Password
Use this tab to change the device's administrator password. Some devices only allow this to be done via their front panel/console. In this case, CWW displays Not supported by the device in the Device Admin Password box. When setting a new password, reuse of the previous ten passwords is not allowed.

SNMP Access
This tab in the Edit Security Properties tab enables you to change the community names with which CWW communicates with a device or change a device's GET, SET and TRAP community names. This function is useful if printers are configured with community names that are different from the common GET = "Public" and SET = "Private" condition. For CWW to communicate correctly with devices, it must be configured to match their GET, SET and TRAP community names. This function also allows you to change a device's community names from their default values to increase network security.

1. Select a printer from the All group and click on its **IP Address** or **Device Details** icon.
2. In the Edit Actions window select **Edit Security Properties**.
3. Click on the **SNMP** tab.
4. Click the **Use to Access Device Only** radio button. This enables changing the community names that CWW uses to communicate with the printer.
5. Click the **SNMP v1/v2** radio button. Record the name displayed in Get Community Name textbox.
6. Enter a different name in the Get Community Name textbox. For example, if the current Get Community Name = public, change it to "red".
7. Click **Save**.
8. CWW now try and communicate with the device using the Set community name "red". Since this does not match the printer's Set community name "public", communication fails and the following message is displayed:


Edit Security Properties: WCP3545-8607
Xerox WorkCentre Pro C3545
There was no response from the device, the SNMP GET community name is invalid, or the device is configured for SNMP v3 only.

9. Change the GET community name back to the name recorded earlier (in this example public) and click **Save**. CWW can now again communicate with the printer.

EDIT JOB ACCOUNTING PROPERTIES

The Edit Job Accounting Properties action displays the Job Accounting Properties tab. The Job Accounting Properties tab includes properties for setting device Job Accounting and Job Validation Options.

Refresh Data

Note: When first displayed, the Printer Alerts Window of the Detailed Printer section displays the faults detected at the last status retrieval action. Depending on settings that exist in the Historical Data section of the Administration page, alert conditions for any of the discovered printers may or may not be shown when the detailed printer status is first.

To evaluate the Refresh Data feature, perform the following.

1. Display the All printers group by selecting **All** from the Printers navigation tree.
2. Display the detailed status for an individual printer by clicking on the IP Address for that printer.
3. In the Printer Alerts window, note any alert conditions that are listed.
4. At this point, the status shown in the Printer Alerts window may or may not match the overall status icon displayed with the printer at the top of the page since a Printer Alerts data collection action has not taken place.

Note: It is recommended that when displaying the detailed status for a printer that a Refresh Data action be performed to obtain the current printer status information.

5. Select the **Refresh Data** button and note that the status shown in the Printer Alerts window matches the overall status icon displayed with the printer at the top of the page.
6. Force the printer to a fault state (Out of paper, Door open, etc) and select the **Refresh Data** button.
7. Note that the new printer status now appears in the Printer Status window.
8. Return to the All printers display by selecting all groups in the folder navigation window and verify that the new status is shown in the Printer Status column.

Printer Alerts

The Printer Alert Status provides an “up to the minute” view of all alert conditions in the selected printer. To evaluate the Printer Alerts, perform the following.

1. Display the All printers group by selecting **All** from the Printers navigation tree.
2. Display the detailed status for an individual printer by clicking on the IP Address for that printer.
3. In the Printer Alerts Details window, note any alert conditions that are listed.
4. At this point, the status shown in the Printer Status window may or may not match the overall status icon displayed with the printer at the top of the page since a Printer Alerts data collection action has not taken place.
5. Select the **Refresh Data** button and note that the status shown in the Printer Alerts Details window matches the overall status icon displayed with the printer at the top of the page.
6. Force the printer to multiple fault conditions (Out of paper, Door open, etc) and select the **Refresh Data** button.
7. Note that the new printer status lists multiple fault conditions in the Printer Status window.

Reset Printer

The Reset Printer feature reboots a printer over the network thereby providing a convenient way to quickly respond to printer fault conditions which require a machine reboot. CWW can reset a single printer or multiple printers with one action. The reset operation may be performed immediately or scheduled to occur at a later time. This scheduling capability is particularly useful if a group of printers is to be rebooted as it allows the operation to be scheduled during off-peak hours to minimize printing disruption.

To evaluate the Reset Printer feature, perform the following:

1. Display the All Printers group by selecting **All** from the Printers navigation tree.
2. Select one or more of the printers in the All Printers list by clicking on the IP address associated with that printer to display the detailed Printer Properties page.
3. Select the **Reset Printer** button from within the Printer Actions window.
4. In the Schedule window, check the **Apply/Check Now** radio button.
5. Select **Confirm**.

To evaluate scheduling the Reset Printer feature, perform the following:

1. Perform steps 1 through 3 above.
2. In the Schedule window, check the **Apply/Check Later** radio button.
3. Enter a date and time for the reset operation. For the purposes of this evaluation, enter the current date and a time that is between 1 and 5 minutes later than the current time.
4. Select **Confirm**.

Alert History

The Alert History feature saves and views all alerts collected over a period of time. Retaining an Alert History allows easy identification of problem devices.

To evaluate the Alert History feature, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.

2. Display the Group Configuration page for the All group by selecting Configuration from the Group Actions window
3. Display the Configure Group Properties page by clicking the Properties Configure button.
4. In the Status Retrieval window, select the Every radio button and set the time period.
5. In the History Retrieval window select the Every radio button and set the time period.
6. Display the detailed status for an individual printer by clicking the IP Address for that printer.
7. Force the printer to multiple fault conditions (Out of paper, Door open, etc) and select the Refresh Status button.
8. Select Alert History.
9. Repeat the above two steps periodically.
10. The list of Alerts should show all alerts that occurred over the period, even if the alert conditions no longer exist.

Status History

The Status History feature monitors the overall performance of printers over a specified period of time.

To evaluate the Status History feature, perform the following:

1. Display the All printers group by selecting All from the Printers navigation tree.
2. Display the Group Configuration page for the All group by selecting Configuration from the Group Actions window.
3. Display the Configure Group Properties page by clicking the Properties Configure button.
4. In the Status Retrieval window, select the Every radio button
5. Display the detailed status for an individual printer by clicking on the IP Address for that printer.
6. Force the printer to multiple fault conditions (Out of paper, Door open, etc) and select the Refresh Status button.
7. Select Status History.
8. Repeat the above two steps periodically.

Printers Section Summary

After completing the steps in this section the evaluator should have an understanding of the following aspects of the CWW Printers capabilities.

- Gain sufficient understanding of CWW's User Interface operability and be able to assess its ease of use relative to competitive products.
- Sort a list of printers within a group in either ascending or descending order for a number of printer. parameters.
- View only those printers from within a group of printers that match the filter criteria specified.
- Locate an individual printer or a group of printers in the CWW database based on search criteria provided.
- Perform troubleshooting tasks for single or multiple printers.
- Display detailed information for a specific printer.
- View trap and alert information for an individual printer or group of printers.
- Schedule and perform printer resets for one or more printers.
- Add a non-networked printer's information to the CWW database.

8. Utilizing Groups

Overview of Groups

The main purpose of this section is to familiarize the evaluator with the Folder navigation feature and to describe the various default groups that are created. When CWW is first installed, four default groups are created. Printers that are discovered during the initial discovery action are placed in one or more of these default folders depending on their status at the time of discovery.

The ability to set up custom groups lets the evaluator arrange printers in a way that best suits the environment. Groups can be created to represent geographic relationships (All printers in Atlanta, Ga.); functionally (mission critical printers that require quick response to problems); or any way that best suits the needs.

PREREQUISITES FOR THIS EVALUATION:

It is necessary for CWW to have completed a Discovery operation and obtained data from one or more printers. If there are no printers displayed in the All printers group, return to the Getting Started Wizard or proceed to the Administration Section to run Discovery in IP Sweep mode.

How to Evaluate Printer Group Functions

This section discusses the Group related functions highlighted below.

Group Folder Navigation

CWW's Printers page uses the standard Windows® Classic Folders view to show printer and print queue groupings. Each Icon in the folder navigation window represents a Group of printers or Print Queues that contain zero or more items. Folders (also known as Groups) can be selected for display by simply clicking on the folder icon.

To navigate to various printer groups:

- Select in succession the Error, Unconfigured, All and Newly Discovered folder icons.
- Observe that in each case, a list of printers is displayed in the Printers table view window for each group.

The following criteria are used to assign printers to a specific system folder.

ERROR PRINTER GROUP

Printers are placed in the Error group if it is detected that they have an Error fault condition at the time of discovery. Refer to the section on Administration for more information on setting up definitions for the Error fault conditions.

A printer is added to the Error group any time a status update is performed on that printer and it is determined that a critical error condition exists in the printer. This can occur for subsequent discovery actions, a Refresh Status action or a Status retrieval action.

A printer is removed from the Error group any time a status update is performed on that printer and it is determined that no critical error condition exist in the printer. This can occur for subsequent discovery actions, a Refresh Status action or a Status retrieval action.

UNCONFIGURED PRINTER GROUP

The Unconfigured group contains discovered printers that have not been installed (queue created) using CWW.

A printer is added to the Unconfigured group any time a printer is discovered that is not associated with any print queue. This can occur for subsequent discovery actions, a Refresh Status action or a Status retrieval action. (Refer to Section 8 for details on adding printers to queues).

A printer is removed from the Unconfigured group when it is assigned to a print queue.

ALL GROUP

Any printer discovered on the network is included in the All printers group.

A printer is added to the All group any time a status update is performed and a printer is discovered that had not been included in the CWW's database. This can occur for subsequent discovery actions, a Refresh Status action or a Status retrieval action.

Printers can be manually added to the CWW database and the All group using the New Printer function.

Printers can be removed from the All group by using the Manually Clear Database function in the Administration page of CWW. This is described in detail in Section 11.

Printers can also be removed from the All group by using the Delete Printers function described later in this document.

NEWLY DISCOVERED GROUP

The Newly Discovered group contains only those printers detected during the latest Discovery process, which did not previously exist within the CWW server's database.

Printers are removed from the Newly Discovered group manually by using the Delete Printer feature described later in this section.

Additional Printer Folder Functions

In addition to the above group folders, the Printers folder includes the following icons.

- New Group - create a new custom group.

- **New Printer**- manually adds networked or non-networked devices to the CWW database. Refer to the section on Printer Management for evaluations associated with adding new printers.

EVALUATING NEW GROUP FUNCTION

The evaluator can create and set up a new printer group using the New Group feature. To evaluate this capability, perform the following steps.

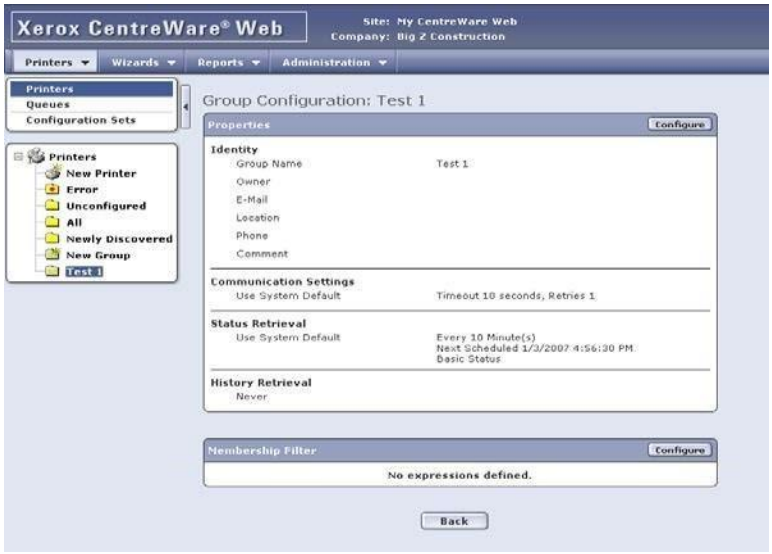
1. Select the **New Group** icon in the Folder navigation window within the Printers page. This action displays the Configure Group Information: New Group page.
2. For the purpose of this evaluation, enter **Test 1** in the Group Name data field within the Identity window. Optionally fill in the remaining Group Identity data fields. Note that Group Name is the only required information in this window.

Note: The Group Name is used to identify a new folder in the Printer navigation window. All remaining Group Identity information is included in any reports generated using this group.

3. This is where the opportunity to configure groups to meet particular needs is provided. As an example, the print administrator may need to set a critical printer group to a 5 minute (or less) status update rate while less critical printer groups can be set to a lower rate. Keep in mind that the Status Retrieval rate has an impact on network loading. Groups can be created as Top-level groups or subgroups of another group. When completed, the Test 1 group becomes a Top-Level group.

Note: CWW does not allow the evaluator to create subgroups under the built-in groups. The New Group option is used to create New Groups and Subgroups of these custom groups.

4. If the Advanced box is not open, click on the arrow to the left of "Advanced". Three boxes open: Communication Settings, Status Retrieval and History Retrieval.
5. The Communication Settings window lets the evaluator specify the timeout period for printer access and how many retries are to be attempted if communication fails. You may select either the **Use System Default** radio button or the **Specify** radio button and enter timeout and retry values. For this example, select the **Use System Default** option.
6. The Status Retrieval window lets the evaluator specify when status updates are to be collected for printers in this group. The options are System Default, Never and Every. By selecting Every, the evaluator can set the status retrieval time for 1 to 999 minutes. When Every is selected, the Basic and Full radio buttons are enabled. These are used to select the level of printer status that is retrieved. For the purpose of this evaluation, leave the Status Retrieval selector button set to Use System Default.
7. The History Retrieval window lets the evaluator specify when history data is collected. The options are Use System Default, Never and Every. Selecting the Every radio button enables the frequency to be input in the text box. The value may range from 1 to 99. The unit is set via the pull-down box and can be set to Hours, Days, Weeks or Months. The Next Scheduled Date and Next Scheduled Time can be entered using their associated pull-down boxes. Finally, you can select via the checkboxes which historical data to acquire: Usage Counter History, Alert History or both. For this example, select **Never** and then select **Save** at the bottom of the window.
8. Verify that a new folder named Test 1 is added to the Folder navigation window.
9. A window entitled Group Configuration: Test 1 appears as shown here. Note that the Membership Filter box contains the message: No expressions defined. This is configured later. Click the **Back** button.



10. Select the new folder named Test 1. Note that it is presently empty. This changes later as additional CWW features are evaluated.

USER AND GROUP ACCESS TO PRINTER GROUPS

Users can only view the contents of the Printer Groups to which they have access. This feature does not affect any users that are in the CWW Power Users or CWW Administrators groups.

To allow access to a specific Printer Group,

1. On the CWW Server, add the domain group of users requiring Printer Group access to the CWW Users group.
2. On the Printer tab in CWW, select the Printer Group to which to assign access.
3. Under Group Actions, select **Configuration** and then select **Configure**.
4. Under the Advanced section, go to the **User Access** section.
5. Under Actions, select **Add**. A list of domain groups appears. The domain can be changed from the list of domains to which the CWW Server has access. Changing the domain changes the list of domain groups.
6. Select the domain groups to be granted access and select **Add**.
7. Select **Save** from the Group Configuration page.
8. When a user within the selected domain group(s) authenticates, they have access to view the printers in this Printer Group.

Custom Group Additional Actions

As described earlier, the Printer and Group actions windows for a custom group (i.e. the Test 1 group just created) contain additional selections over and above those presented in the four default groups created by CWW. The Printer Actions window for the Test 1 group should include new actions Add to Group, Remove from Group and the Group Actions Window includes new actions Delete Group, New Subgroup, and Reorder Group.

ADD TO GROUP

The Copy to Group and Add to Group functions differ primarily in that the printer list displayed using Copy to Group includes all of the printers in the source group whereas the Add to Group function lists only those printers not already assigned to the target group.

To evaluate Add to Group, perform the following:

1. Display the Test 1 group by selecting it in the Printers Folder navigation window.
2. Select the **Add to Group** button in the Printer Actions window, observing on the Add to Group page that only those printers not already assigned to the Test 1 group are being displayed.
3. Select one or more printers and select the **Add** button.
4. Redisplay the Test 1 group and verify that the specified printers have been added to the Test 1 group.

REMOVE FROM GROUP

Remove from Group removes the selected printers from the group being displayed. The printers remain in the CWW database and well as any groups to which those printers were assigned.

To evaluate Remove from Group, perform the following.

1. Display the Test 1 group by selecting the **Test 1** group in the Printers Folder navigation window.
2. Select a printer in Test 1 by checking its checkbox.
3. Under Printer Actions select the **Delete Printers** button.
4. Redisplay the Test 1 group and verify that the printer has been removed from the group.
5. Display the All Printer group and verify that the printer is still a member of that group.

IMPORTING GROUPS

The Import Groups action lets you import csv file data to create groups and the hierarchy of groups. And add Membership Filters to groups. Importing groups is supported for up to 6000 groups and subgroups. You may have up to 20 sub-levels of subgroups. There are templates for Group and Membership that you can export and use to build your import file.

Follow the steps below to import group and membership files.

1. Navigate to **Devices>Printers**.
2. Under Group Actions click **Import Groups**.
3. Follow the instructions to import a csv file to either:
   a. Create the group hierarchy.
   b. Add filters to existing desired groups.
4. Click **Import**.
5. A results screen tells you how many groups have been added, updated, and how many errors there are.
6. Click **Back**
7. Your new groups appear in the Printer group list in the left navigation.

IMPORTING DEVICES INTO GROUPS

The Import Devices into Groups action lets you import csv file data to add device to groups. You can assign new or existing (already discovered) devices to a group. With a new device, Xerox® CWW runs a discovery for the provided IP address and assigns the device to the group. There is an Assign to Group template you may export and use to build your import file

Follow the steps below to import devices into a group.

1. Navigate to **Device >Printers**.
2. Under Group Actions click **Import Devices to Groups**.
3. Follow the instructions to import a csv file.
4. Click **Import**.
5. A results view shows you how many addresses were found and how many entries were assigned successfully to existing groups.
6. Click **Back**.

COPY TO GROUPS

Use the Copy to Group function to add printers to the custom groups that the evaluator creates. This feature, along with Create New Group enables the evaluator to arrange printers in a way that best suits the environment. After creating a custom group, printers can be added to that group by selecting printers from another group or by using the Find function to locate printers to copy.

To evaluate this feature, perform the following.

1. Display the All group by selecting the **All** group in the Printers Folder navigation window.
2. Select one or more printers either by checking the individual check boxes or by checking the **Select All** box.
3. After selecting one or more printers, select the **Copy to Groups** button within the Printer Actions window.
4. At this point, the Copy to Group page is displayed. This page displays a selection list of all custom groups (For example Test Group 1).
5. A listing of available groups is displayed in the Add New Printer to Selected Group window. Click on the **Test 1** group in the Available Groups box and then click on the ▼ down arrow. This group now appears in the Selected Groups box.
6. Click the Finish button and the printers selected in the step 2 are copied to the specified custom group (Test 1).
7. Verify that the newly added printers are now visible in the Test 1 group page.
8. CWW also provides the ability to create a new custom group from within the Copy to Groups feature for enhanced convenience and usability. This feature allows the evaluator to easily create a new group and copy a selection of printers to the newly created group all on one page.

Notice also that the Copy to Group page displays a Remove from Source window, depending on which group was selected at the time the Copy to Group feature was selected. The Remove from Source option may or may not be enabled based on the rules defining the group populations described in Group Configuration (Section 6).

The behavior of the Remove from Source selector is as follows:

- If the Error group, the Un-configured group or the All group is being displayed when the Copy to Group feature is selected, the Remove from Source option is disabled. This is because the user is not allowed to override the rules for including printers in those groups.
- If the Newly Discovered group or any Custom Defined group is being displayed when the Copy to Group feature is selected, the Remove from Source option is enabled. This is because the user is allowed to manually specify printers to be included in these groups.

NEW SUBGROUP

The New Subgroup feature enables the creation of groups that are subsets of a higher level group. To evaluate the New Subgroup feature, perform the following:

1. Display the Test 1 group by selecting the **Test 1** group in the Printers Folder navigation window.
2. Select the **New Subgroup** button from the Group Actions window.
3. Enter **Test 1.1** in the Group Name field.
4. Click the **Save** button.
5. In the Group Configuration window, click the **Back** button.
6. Verify that the new subgroup entitled Test 1.1 is now displayed in the Printer navigation window. Notice that this new subgroup is displayed using the standard Windows® Classic Folders view.

REORDER GROUP

CWW provides the ability to quickly and conveniently organize the way in which custom printer groups (folders) are displayed within the Printer navigation window.

To evaluate the Reorder Group feature, perform the following:

1. Create another New Subgroup of Test 1 by executing steps listed above. However, this time name the group Test 1.2.
2. Click on the + sign to expand the subgroups. Verify that the New Subgroup entitled Test 1.2 is now displayed in the Printer navigation window.
3. Notice that the Test 1.1 group is presented as the first subgroup folder for Test 1 group followed by the Test 1.2 subgroup. Select either the **Test 1.1** or **Test 1.2** subgroup from the Printer navigation window.
4. Click on the **Reorder Group** button in the Group Actions box.
5. In the Reorder Peer Groups window: Highlight the **Test 1.2** subgroup and select the **up arrow** ↑ to reposition the Test 1.2 subgroup above the Test 1.1 subgroup.
6. Click on the **Save** button.
7. Notice that the Test 1.2 group is now presented as the first subgroup folder for the Test 1 group followed by the Test 1.1 subgroup.

The capability to Reorder Groups exists only for peer groups residing at the same folder level referred to as peer groups. Top-Level groups are peer groups to each other. Additionally, Subgroups are also peer groups to each other. CWW does not provide the ability to Reorder the built-in groups.

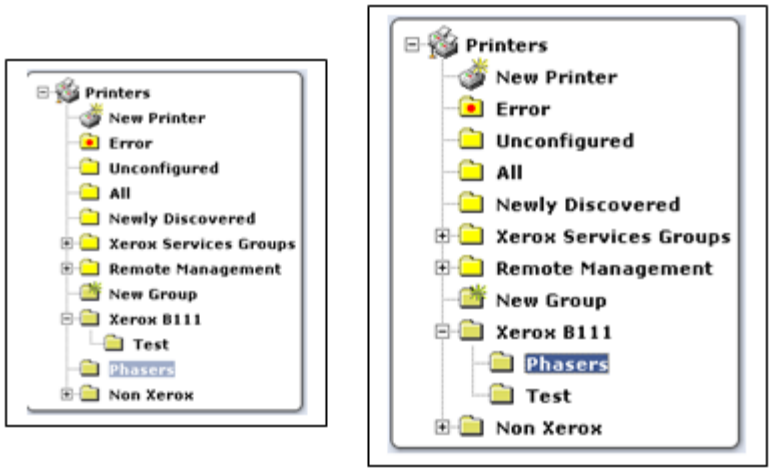
SET PARENT GROUP

CWW's Set Parent Group feature provides the capability to reassign a group to a different parent group, even if it previously did not have a parent group. This can be useful in reassigning assets to different organization, groups, etc. The group stays intact when it is reassigned to the new parent.

To evaluate the Set Parent Group function:

1. Select the group to be reassigned and click Set Parent Group.
2. In the Set Parent Group box, select the New Parent Group and click Save. The group is now shown in the hierarchical view under its new parent group.

For example, let's say that we want to move the group Phasers to be under the parent group Xerox B111. Selecting the group Phasers in the Group Actions Box and clicking on Set Parent Group. Select Xerox B111 assigns the Phasers group to the Xerox B111 parent group.



Delete Printers

Use the Delete Printers function to remove printers from the CWW database. This feature is provided as a way to delete printers that are not intended to be included in the CWW database.

If the printer was included to the CWW database as a result of a specified discovery action, it may be necessary to adjust the discovery parameters so that the unwanted printer is not subsequently rediscovered.

To evaluate this feature, perform the following.

1. Display the Test 1 group by selecting the **Test 1** group in the Printers Folder navigation window.
2. Select one or more printers to be deleted using the check box next to those printers.
3. Select the **Delete Printers** button from within the Printer Actions window.

Observe that the Printer Actions window for the Test 1 group contains a Remove From Group button not visible in the All printer group. The reason for this is that printers are allowed to be removed from Custom Groups but not from the All printers group.

4. Select the **Confirm** button on the Delete Printers page to remove the selected printers from the CWW database.
5. Verify that the selected printers were removed from the Test 1 group.
6. Return to the All Printers group and verify that the selected printers were removed from that group as well.

At this point, the evaluator may want to re-run discovery to add the deleted printers to the CWW database.

Delete Group

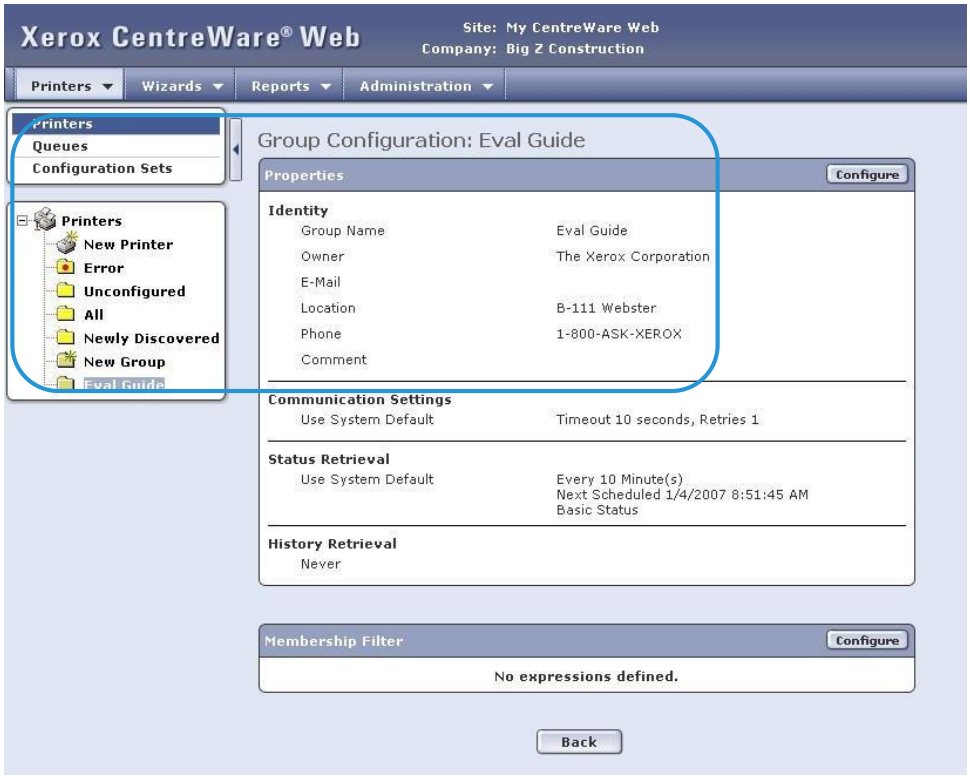
The Delete Group function enables the removal of a custom group or subgroup. Note that deleting a group that contains sub-groups results in the deletion of the sub-groups as well. To evaluate the Delete Group function, do the following:

1. Display the Test 1 group by selecting the **Test 1** group in the Printers Folder navigation window.
2. Select the **Delete Group** button from the Group Actions window.

3. Select the **Confirm** button to delete the group.
4. The Test 1 group is deleted and the All group is displayed.

Group Configuration

All CWW printer groups can be customized to meet the specific organization's needs by using the Configure Group features. Additional group configuration settings are available for all default and Custom groups by selecting the Configure button from within the Group Actions window of the currently selected group. This includes the ability to specify group identification information, status retrieval rates and membership filters for the selected group.



CONFIGURE GROUP IDENTITY

The evaluator can customize any group to make it easier to identify printers in the group. Groups can be identified by geographical location, building location, level of service needs and other criteria. Descriptive information for a group includes Group Name, Owner Name, Owner E-mail, Owner Phone, Location and a Comment field.

To evaluate the Group Identity function, perform the following.

1. Display the All Printers group by selecting the **All** folder in the Printers Folder navigation window.
2. Select **Configuration** within the Group Actions window.
3. Select the **Configure** button in the Properties window.
4. For the purpose of this evaluation, fill in each of the data fields in the Identity window as follows:
   a. Group Name: All (not editable)

b. Owner: System Administrator
c. E-mail: SA@ MyCompany.com
d. Location: Home Office
e. Phone: 555-1212
f. Comment: Evaluating groups

Note: For predefined groups, the group name is set at time of installation and cannot be changed. For Custom groups, the user specifies the group name when the group is created.

5. Select the **Save** button at the bottom of the Configure Group Information section. This returns to the Configure Group: All page.
6. Verify that the information entered in the Group Identification data field is now displayed in the Identity window.
7. Observe that the Owner and E-mail fields are displayed as hyperlinks.

GROUP STATUS RETRIEVAL

The Status Retrieval feature specifies how often status information is retrieved for the printers in any default group as well as for any Custom groups that have been created. The status retrieval rates for each group can be specified so that they best meet the needs of the support requirements of the site. For example, status for high visibility or mission critical printers can be taken as frequently as once a minute. Status rates for less critical printers can be set to lower rates.

To evaluate the Status Retrieval function, do the following.

1. Display the All Printers group by selecting the **All** folder in the Printers Folder navigation window.
2. Select the **Configuration** button from the Group Actions sub window.
3. Select the **Configure** button at the top of the Properties window.
4. Click on the arrow next to Advanced to open the Advanced settings.
5. Click on the arrow next to Status Retrieval to open the Status Retrieval window.
6. Select the radio button labeled **Every** from within the Status Retrieval window.
7. Enter 1 (minute) in the Minutes data field.
8. Select the **Full Status** radio button.
9. Select the **Save** button to apply these changes. This returns to the Configure Group section.
10. Verify that the Status Retrieval window shows a status retrieval rate of Every 1 minute(s).
11. Wait a few minutes and redisplay the All printer group.
12. View the Status Date column within the Printer window for the All printer group to verify that the printers were pooled for status within the last minute.

Note: See the Evaluating Table Preferences section above to add the Status Date column to the Printer window if it is not already present.

13. Return to the Configure Group Information page and reset the status retrieval rate back **to Use System Default**.

Group Membership Filter

The CWW Membership Filter feature provides the ability to automatically populate custom printer groups with specific printers, based upon a flexible configuration of printer device property variables, conditions

and values. For example, the evaluator can automatically assign a printer to a particular group based upon device properties such as Manufacturer = Xerox, where the device property variable is Manufacturer, the condition is Equals, and the value is Xerox. Once the desired configuration is established, the CWW application dynamically populates the specified groups based upon device status information obtained during the group Status Retrieval process evaluated previously in this document.

To evaluate the Group Membership Filter and configure the Basic Dynamic Grouping feature, perform the following:

1. If group Test 1 was previously deleted, create a New Group and label it Test 1. Otherwise, display the Test 1 printers group by selecting the Test 1 folder in the Printers Folder navigation window.
2. Select the **Configuration** button from the Group Actions window.
3. Select the **Configure** button located at the top of the Membership Filter window.

Note: This window should be displaying a value of No expressions defined, indicating that the Membership Filter does not contain any dynamic grouping specifications.

4. Select the **New Expressions** button located at the top of the Expressions table.
5. Highlight the **Traps Enabled** selection from within the Variable drop-down box.
6. In this case, notice that the Condition field is automatically set to Equals.
7. Highlight the **Yes** selection from within the Value drop-down box.
8. Select the **Save** button.
9. Notice the Expressions table is now populated with the Traps Enabled variable and the associated condition and value.
10. Select the **Back** button.
11. The Group Configuration page for the Test 1 group is displayed which now contains the addition of the Traps Enabled Membership Filter.
12. Display the Test 1 printers group by selecting the **Test 1** folder in the Printers Folder navigation window.
13. Notice that any printer previously registered to receive Traps is now displayed in the Test 1 group.

Note: CWW enables Dynamic Grouping for custom groups only. Built-in groups contain pre-configured dynamic grouping and group membership filters.

An added feature of the Group Membership capabilities is that CWW can also display the group names of which a particular printer is a member. This feature not only specifies the group(s) that a printer is a member of, but also identifies the nature of the membership. For example, CWW indicates whether the printer was automatically, dynamically, or manually added to a particular group(s). Understanding this information further enhances the ability to effectively organize and manage the printer groups.

To view a printer's group membership:

1. Select a printer by clicking on its **IP Address** or **Device Details** icon.
2. Select **Group** from the toolbar. The printer's Group Membership is displayed.

Status Alerts

CWW enables sending E-mail messages for only those printer alert conditions and printer queue-based conditions that are considered important. In other words, filter out less important alert conditions (e.g. door open, output tray full, etc.) and send E-mail messages only for the critical ones (e.g. Paper Jammed, Toner Low, etc.). Additionally, CWW enables customization of the subject line of the resulting E-Mail message as well as providing additional descriptive text in the body of the E-Mail message. CWW provides an expanded

array of alerts that encompass a variety of conditions of concern to the system administrator. These expanded alerts give greater insight into the printer status. For example, CWW can alert the system administrator when a consumable such as an imaging drum or fuser is reaching its end of life. With this information it is now possible to order replacement supplies in a timely manner to avoid out of service conditions.

PREREQUISITE FOR THE REMAINDER OF THIS TEST

In order to conduct this test, it is required to have physical access to a networked printer on which the evaluator can perform tests such as forcing a Door Open or Out of Paper conditions. This printer must also be included among the All Printer group within the CWW database.

- Verify that the status of the test printer is Up and Running before conducting the Status Alerts test.
- On the Administration>Network page, select Enable Status Alerts and configure the Mail server if required.

E-mail alerts feature

1. Display the All Printers group by selecting the **All** folder in the Printers Folder navigation window.
2. Select the **E-mail Alerts** button. This displays and sets up the E-mail Alerts for the All printers group.
3. If this is the first time, create a new E-mail Alert Profile. Select **New**. The New Printer E-mail Alert Profile window is opened
4. In the Profile Identity window enter **All Profile** without the quotes in the Name fields.
5. Check the Enabled box.

This feature enables or disables individual profiles from generating Status alerts. This can be useful for evaluating functional alerting without having to re-enter the profile information.

6. In the Device Alerts to Report window, select **Door Open** from within the Excluded Alerts sub window.
7. Select the → button to move Door Open to the Included Alerts sub window.
8. In the Data Fields window, select the → button to select all fields. This is the information about the device included in the mail note sent to the recipient.
9. In the New Recipient field of the E-mail Recipients window, enter a valid SMTP E-mail address for the evaluator.
10. In the E-Mail Alert Format window check the **Custom** radio button and enter the following text: **Testing EMail alert feature**.
11. Select **Add**.
12. Select **Save** to save the new E-mail Alert Profile.

Multiple Status Alert Profiles can be associated with a group. Different individuals may be notified of different alerts. Each Profile may specify different data to be sent to the recipient.

13. On the Configure Group: All page, select the **Configure** button.
14. On the Configure Group Information: All page, select the Every radio button and set the status retrieval interval to 1 minute.
15. Select **Save** to apply the Status Retrieval settings.
16. Using the test machine, force a door open condition.
17. Wait at least one minute for a Status Retrieval action to occur.
18. Display the detailed status for the test printer by clicking on the printer's IP address from within the All Printers group display page.

19. Verify that the Door Open status is identified in the Printer Status window. At this point, an E-mail is generated and sent to the address specified in the Alert Recipients field of the All Profile sub window on the Printer E-mail Alerts page.
20. Verify the delivery and accuracy of this E-mail message.
21. Upon completion of this test, set the status retrieval interval to a value that won't stress the network.

Group Section Summary

After completing the steps in this section the evaluator should have an understanding of the following aspects of the CWW Group capabilities:

- Become familiar with the Printers navigation window and understand the purpose and characteristics of the Error, Unconfigured, All, Newly Discovered and New Group folders.
- Be able to create new printer groups and configure and arrange them to best match the environment.
- Within the Printer Table view for a group of printers, specify up to 20 printer parameters to be displayed for the group.
- Assess the ease of performing printer group management tasks.
- Be able to configure groups to meet the organizational needs.
- Use group membership filters to create flexible groupings that support the management model.
- Be able to delete or change printer groups that are no longer needed.
- Be able to assign status retrieval rates for groups of printers that match the organizational needs.
- Determine additional ways to utilize CWW in the network environment

9. Configuration Sets and Configuration Policies

Within any managed site, there is a need to be able to efficiently and effectively manage the settings common to a particular class of machine. Configuration Sets applied using Configuration Policies provides this capability, and can significantly aid in conformance stability, especially within a large fleet of devices and/or where there is a high level of device Moves and Adds or Changes. Configuration Sets applied using Configuration Policies provides a reusable template to both monitor and set various device configuration parameters. Applying settings to these devices is a two-step process:

1. Configure a Configuration Set
2. Configure a Configuration Policy

CWW Configuration Sets provides the tool to record and maintain templates of device configuration settings. These configuration settings include the following: Protocol, Network Scanning, Security, Printer Defaults, Asset information, and Job Accounting settings. The settings in each group are displayed within the User interface in a tabbed format. Additionally, there are settings that can be configured for non-Xerox devices. These settings can be found on the Other tab. The Configuration Set templates can then be scheduled to be applied to devices or to check Compliance using Configuration Policies.

CWW Configuration Policies provide a task-based mechanism to schedule and monitor the application of Configuration Sets. Configuration Policies can have a set schedule, or they can run upon a device discovery. Multiple Configuration Policies can be created to apply different configured Configuration Sets to devices based upon existing groups in CWW or on a specified filtered list of devices.

Periodic application of Configuration Sets can identify devices that are not in compliance (Check Audit Check detail action), and can also be used to reset the specific fields to conform to the site requirements (Apply Configuration detail action). Configuration Sets can be created from a blank template or from an already configured device to pre-populate a template. Configuration Sets can be applied to a single device, or to a group of devices for both checking and setting configuration.

Warning: A Configuration Set can be created using a mix of device settings. Example: A Configuration Set can include some Protocol, Security and Network Scanning settings together.

Some fields within a configuration set are appropriate only to a specific model, some are generic and can be applied to any model, and some are appropriate for only a specific support or service function but appropriate for many model types.

Automated remote discovery is available for configuration sets. A device can initiate contact to a Xerox® CentreWare Web server through a REST Service. The Xerox® CentreWare Web responds by running discovery on the calling device, which either adds the device to Xerox® CentreWare Web or updates information for the existing device. During the discovery process, Xerox® CentreWare Web will write its address to the managed by server field on the device.

Recommended Usage

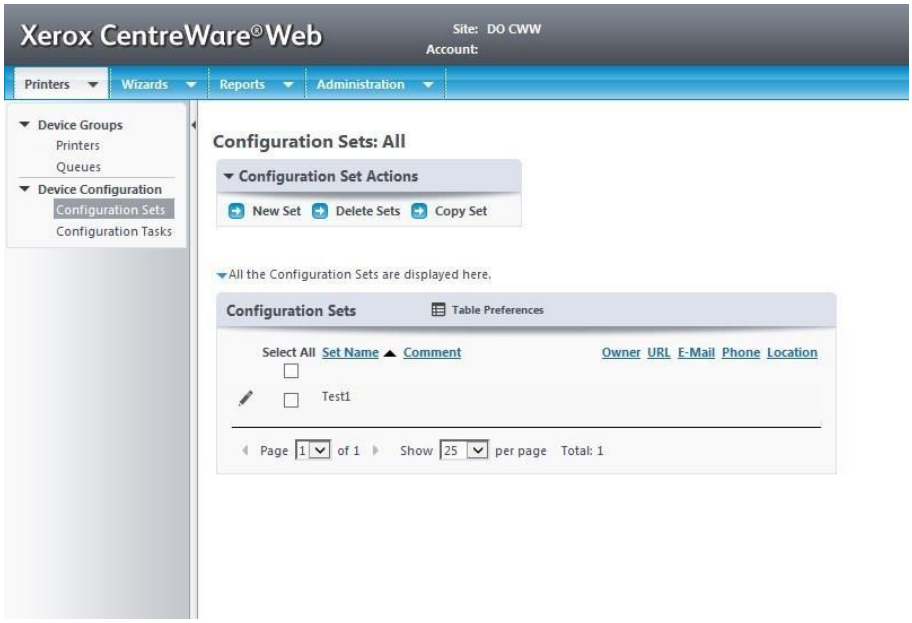
- Know what is out there.
  - Use Audit Check Configuration Set to confirm which settings need to change, and which should remain. There may be specific printers that require settings that are different from standards; individual requirements should be confirmed.

- Test. Apply Configuration to one device while that printer status is visible.
  - Confirm that the outcome of the new device settings is as expected. Different firmware levels in the same product family may behave differently – multiple firmware levels on the devices in the same family might suggest multiple tests.
- Apply Configuration to a known group of printers, and confirm status and setting.

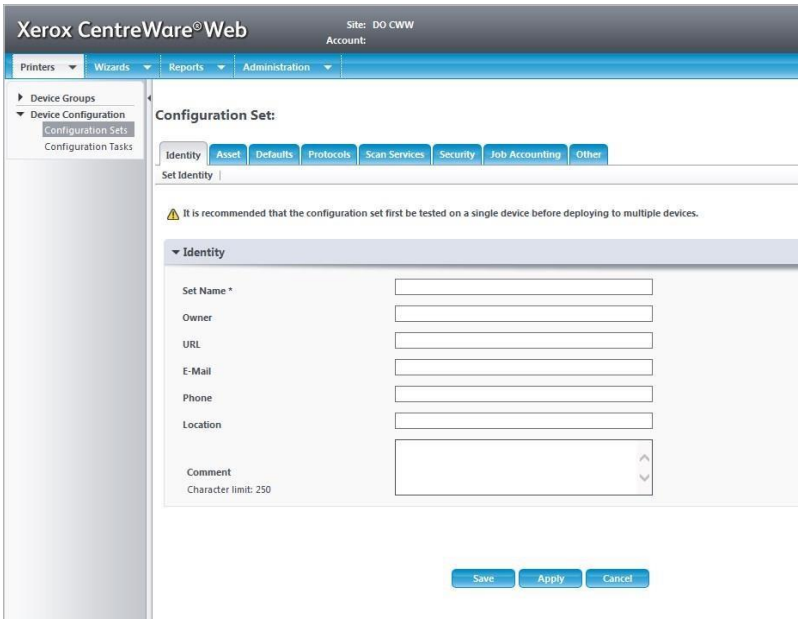
Creating Configuration Sets and Policies

STEPS TO CREATE A CONFIGURATION SET

1. Select Policies > Configuration > Configuration Sets > New Set or New Set Configuration Action.



2. Configure the Set Identity Information. Configuration Set Name is required to uniquely identify the Configuration Set.



3. Configure any Asset, Printer Default, Protocol, Network Scanning, Security, Job Accounting or Other settings on each respective tab.

Note: The Other tab contains settings for non-Xerox Devices, and currently only supports HP default settings. HP Protocol settings are configured along with Xerox Protocol Settings. All other HP settings that are configurable are contained in the Other tab.

4. Select Save to save the Configuration Set.

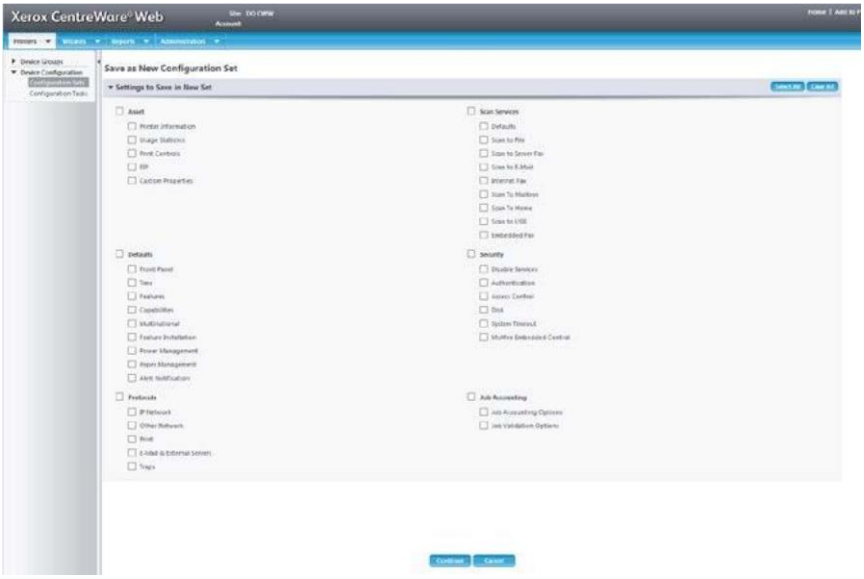
DELETE AND/OR COPY A SAVED CONFIGURATION SET

1. Select Policies > Configuration > Configuration Sets
2. Check each Configuration set you wish to Delete or Copy by selecting each Configuration Set in the list.
3. Select the Delete Sets or Copy Set Configuration Set Action.

CREATING A CONFIGURATION SET FROM A DEVICE

A Configuration Set can also be created by selecting a device that has the settings you wish to propagate, and copying the configuration to a new Configuration Set.

1. Select Device Groups > Printers:
2. Select the View icon of the desired printer from the printer list to propagate settings from.
3. Select the Save as New Configuration Set action for the device.



4. Select settings to include in new configuration set and press Continue.
5. Edit the New Configuration Set if necessary and select Save.

CONFIGURING DEVICES REMOTELY

You can use configuration sets to configure a newly installed device remotely. Rather than have a carrier perform the initial set up at delivery on site, the Xerox® CWW administrator can create and schedule a configuration set and policy to perform this function.

Requirements:

- This is supported for devices initially set for Dynamic Host Configuration Protocol (DHCP) only.

- The device must be connected to a working network that is reachable by Xerox® CWW.
- Available only for devices that support remote Install Wizard settings.

To use this feature, follow the steps below:

1. Create a configuration set that includes disabling the Install Wizard screen (Security/Disable Services tabs)
2. Create a policy.
   a. Add the configuration set that was created in Step 1.
   b. Set the policy to run on newly discovered devices - or - select devices for which to apply the policy.
3. Run Discovery that includes the subnet for the new device (either through schedule or on demand).

CREATING CONFIGURATION POLICIES

Policies allow you to manage a fleet's configuration--both firmware and configuration sets. There are extensive configuration options that can be linked to individual or multiple groups. Configuration policies offer a more intuitive way to update and audit device settings. When you create a policy and apply it to groups, it is used as the basis for policy execution and reporting. Taken in conjunction with the Device Health Dashboard, which is a graphical display of compliance successes and issues that you can drill down into for details, configuration policies are a powerful tool for fleet management.

1. Go to **Policies > Configuration > Configuration Policies** and click **New**.
2. On the Identity tab click Enabled to turn on the policy. Enter a name and description. Click **Next**.
3. On the Actions tab complete the following fields as needed, and click **Next**.
   a. Actions: Choose to Audit devices, Enforce the attributes in configuration set(s), or to reboot devices. Once you select Reboot Devices Only, other fields are greyed out.
   b. Configuration Profile
      - Choose one or more configuration sets from the drop down.
   c. In the Schedule section set the frequency and the next date and time.
      - You can also choose whether to run immediately on devices which are newly discovered.
4. On the Assign Tab, complete the following fields as needed and click **Next**.
   a. Devices to Apply: Choose the device groups and/or device expressions.
      - For device groups. click in the multi-select box and choose a group or groups.
      - If you choose device expressions, you may need to add a new row (e.g., IP address—enter the values in the row for a new expression.)
   b. Device Admin Password: Choose Auto to use the default password, or select Specified and enter the Administrator user name and password.
5. On the Audit Notification tab, to enable e-mail notifications, turn on the Send E-Mail Notification switch. It is off by default. Indicate who will receive emails about configuration policy status and what the notification will contain. Click **Save**.
6. After a policy runs, go to Dashboards to view the compliance dashboards.

EDITING A CONFIGURATION POLICY

Follow the steps below to edit a firmware policy. You cannot edit a policy that is running.

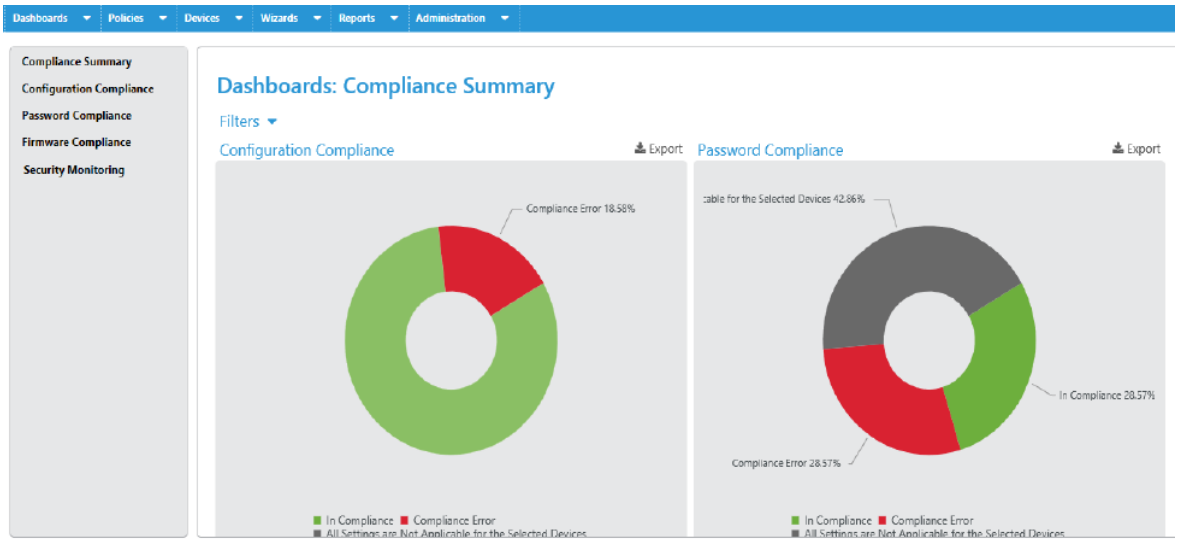
1. In the Configuration Policies screen, select a policy and click the **Edit** icon.
2. You may modify the settings on the Identity, Actions, Assign, and Audit Notification tabs, as needed.

ADDITIONAL CONFIGURATION POLICY ACTIONS

- **View Results / Progress**: Allows you to view the current status and progress of a selected Configuration Policy and the Results of a completed Policy.
- **Stop**: Stops a Configuration Policy that is currently running.
- **Run**: Starts the selected Configuration Policy.
- **Delete**: Deletes a selected Configuration Policy.

10. Exploring the Device Management Dashboard

The Device Management Dashboard allows you to monitor devices and resolve issues to ensure that they remain in the desired configuration state. Drill down features make it easy to see and understand the policy compliance at each device level. The detailed views display specific errors relating to device policy compliance.



In the left navigation choose which compliance information to display. You can click on the graphs to drill down for greater detail.

In each of the policy charts or bars, click on a ring or bar to drill down for more information about the policy. Click again to view a list of compliant or non-compliant devices. From this view you can enforce the policy.

- Compliance Summary: Shows overall compliance by policy in a doughnut chart. Each ring is a different firmware, configuration set, or password policy. You can filter these views by one or more device groups. This feature is only functional when a device group is associated with a policy, rather than individual printers.
- Configuration Compliance: Shows compliance for the configuration policies you have set. The dashboards present information in an overall view, by each policy, by model, and by trend.
- Password Compliance: Shows compliance for the password policies you have set. The dashboards present information in an overall view, by each policy, by model, and by trend.
- Firmware Compliance: Shows compliance with firmware policies you have set. You must have a policy type of 'Monitor' or 'Monitor and Automatically Upgrade' in order for the firmware policy to appear in the dashboards.
- Security Monitoring: Proactively monitors devices discovered by Xerox® CentreWare Web that have "McAfee Embedded Control" enabled and have been registered to communicate with Xerox® CentreWare Web if any security breaches happen on a device.
  - The McAfee Security Monitoring dashboard chart shows the security threats that occurred during the last 30 days. The threat detected can be verified by clicking on chart to drill down. The detailed threat message is then displayed from the device, and the user can audit the individual threat with an appropriate audit determination.
  - The McAfee Monitoring Trend chart shows a historical view of security events by month for the last 12 months.

Policy Drill Down

When you want more information than the high-level dashboards present, click on a ring or bar for more details. Click again to view a list of compliant or non-compliant devices. If you have the appropriate permissions, you can enforce the policy from this view. Customer Report Users will not see the Enforce button, and it will not display on the Security Monitoring drilldown view.

Below you can see the Compliance by Policy view, which is showing compliance by percent for firmware. You can apply filters to display different views of the dashboard depending on the data you need. You can see there are several policies out of compliance. Hover over the bar to see the full policy name and percent of devices out of compliance. Click on the bar for a list of the devices and details about their level of compliance. The list view shows you the model and reasons for non-compliance, as well as the other pertinent information for remediation.

Exporting the Dashboards

Each of the dashboards can be exported and stored locally to support tracking and resolving compliance issues. Follow the steps below to export a dashboard.

1. Click the Export icon above the dashboard.
2. In the Export to File pop-up window complete the following fields.
   a. Row Grouping: Choose to group by policy or device.
   b. Included Fields: Either use the defaults our custom set the fields you want to include in the export
   c. Time Span: Set the range of days to include in your export. You can choose all data, a set number of previous days, or a specific date range.
   d. Format: In the drop-down select CSV or HTML
   e. Language: Choose the language of your export to translate your fields names.
3. Click Download.
4. Save the file.

11. Working with Device Firmware Policy

Overview

A firmware upgrade policy gives you the ability to manage and deploy firmware changes to an entire fleet of printers in order to improve printer capabilities and functions. The Firmware Version Policies pages have a streamlined look and additional functionality, such as scheduling retries for failed upgrades, and adding options to restart only failed upgrades.

In addition to our standard method of updating firmware on your devices, we are also compatible with Fleet Orchestrator; a hub and spoke model for firmware deployment to Xerox® Altalink® devices.

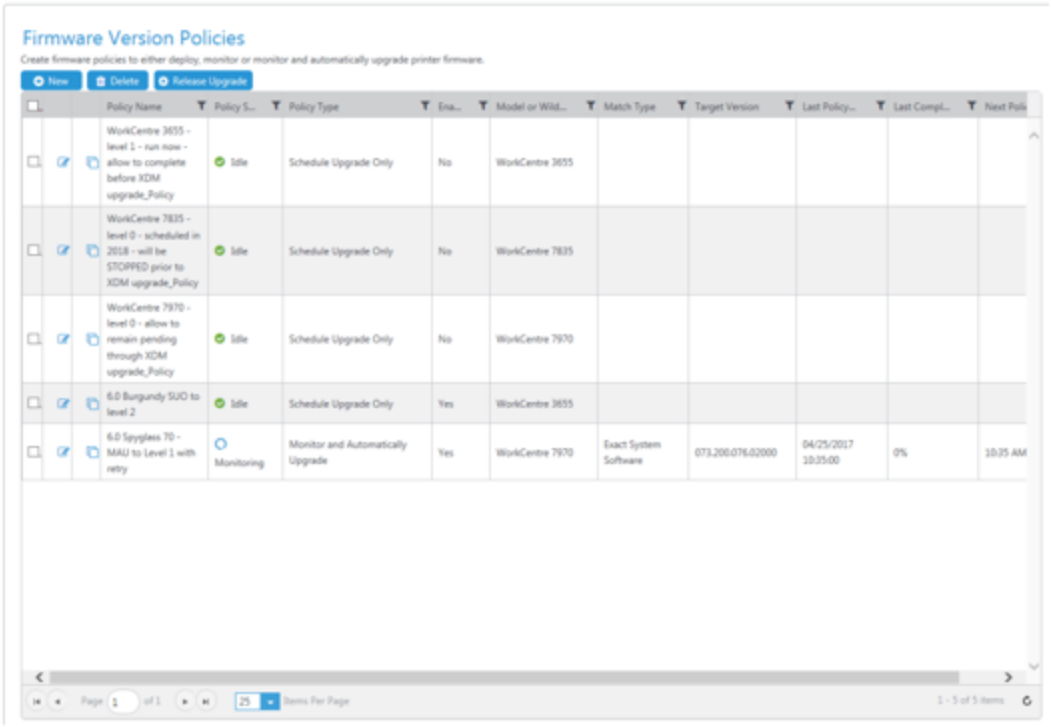
Firmware upgrades can:

- Supply corrective actions
- Enable new features
- Extend support capabilities for existing print devices

Xerox® CWW provides a simple procedure to:

- Organize printer firmware upgrade files
- Select a population of devices for upgrade
- Schedule the upgrade
- Report back on the success or failure for each device
- Schedule retries for failed upgrade and restart upgrades that have failed.

To navigate to this screen, go to **Policies > Software > Firmware Policies**.



The Firmware Version Policies grid shows the policies that have been created and their status. Within the grid you can edit policies. You also have the capability to create a new policy, delete it, or perform a release upgrade. Within the grid you can also edit or copy an existing policy.

We support updating Xerox® printers, HP printers, and HP JetDirect cards, Lexmark, and Honeywell. The manufacturers whose devices we support continues to expand.

Notes:

- The task list of printers to be upgraded is kept in the database so if there is a failure in the Xerox® CentreWare Web server, the process restarts at the last stage of the upgrade task.
- An upgrade task in progress can be Stopped, Restarted or Deleted. A new upgrade task cannot be started until the final device of the previous upgrade task has reached the verifying state.
- Typically, the device goes offline as it reboots to apply the upgrade file. It must be contacted again to confirm the upgrade was successful.

Adding / Deleting Files to the Software File Repository

Use the Software File Repository to house the files you need to support upgrades. Generally, these files can be downloaded from the device manufacturer's site.

1. Click **Software File Repository** to view the Software File Repository grid.
2. If the appropriate upgrade file is not available, select **Add File**.
3. Select the Manufacturer from the drop-down list. A link to the manufacturer's website displays.
4. Select either the **Exact Model** printer for which these files are appropriate from the drop-down menu, or when a file may be appropriate for multiple members of a family, select **Model Contains**, and specify the string to be matched.

Note: For HP devices, only the Printer Model Contains option is available.

5. Click **Browse** next to Upgrade File. You can now upgrade the uncompressed file.
6. Highlight the file and select [**Open**] in the Choose File box.
7. By default, Qualify is set to **Off** for all upgrade files. When Qualify is off, the upgrade file may only be sent to one device at a time. You may also change the Qualify setting from the Firmware File Repository grid. Change Qualify to **On**, if you want to send the file to any number of devices simultaneously.
8. If there is relevant documentation associated with this particular upgrade, select Attachment, and then select the appropriate file. You should attach Word (.doc), text (.txt), PowerPoint (.ppt) or Adobe (.pdf) files.
9. Enter a short explanation for why or when to use this file in the Description field.
10. Click **Save** to return.

Creating a New Firmware Policy

This section describes how to create a firmware policy. To create a firmware policy:

1. Select **Policies > Software > Firmware Policies**. The Firmware Version Policies screen displays.
2. Select **New**. The New Firmware Policy screen displays. Complete the Identity, Assign, and Schedule tabs.
3. On the Identity tab, complete the following fields as needed, then click **Next**.
   a. Enable: Toggle to enable/disable the policy.
   b. Policy Name: Enter a unique name.
   c. Type: From the drop-down list choose the policy type. The policy type drives the rest of the configuration within the policy. When you choose Monitor or Monitor and Automatically Upgrade, these policies report on through the Device Health Dashboard, so that you can see how compliant the fleet is to a given version of firmware.
      - Monitor Only: Monitors the firmware upgrade for the desired version.
      - Schedule Only: This allows you to upgrade the firmware to the desired version without any monitoring. Note you cannot downgrade firmware remotely. This is most similar to earlier version's Upgrade Printer Wizard.
      - Monitor and Automatically Upgrade: Monitors the firmware version and attempts to upgrade if the version is not on the desired version. Note, you cannot downgrade firmware remotely.
   d. Model Selection: Choose a printer model from the drop-down list or the Printer Model contains option.
   e. Use Fleet Orchestration Method: When you choose a printer model that supports the Fleet Orchestration Method this option is enabled by default. **The Fleet Orchestrator method configures devices to pull the file at the scheduled runtime of the policy. The default topology for this distribution is flat; in other words, all devices in the schedule will make a request to Xerox® CentreWare Web, and Xerox® CentreWare Web will respond with the file**.

      Note: Currently, we only support Xerox® Altalink®devices.
   f. Description: Enter a short explanation for why or when to use this file.
   g. Monitor: For a Monitor task or a Monitor and Automatically Upgrade task, you need to set a version for which to check. For Monitor and Automatically Upgrade only, you also have the option to upgrade for multiple versions of firmware if you enable the version range, In this case, the policy only upgrades when the firmware of the device is within a specific range of versions. If the major version were upgradeable to 073 firmware only when the device is on 072, then the range would be set to min 072 and max 072. Then, when the firmware is not on the desired version and it is within

the version range, the system will trigger the upgrade at the scheduled time. You can then set up multiple policies to cover the entire range of possible firmware versions, and the firmware will upgrade each night when it isn't on the desired version.

h. Upgrade: Click **Select** to choose a single file for upgrade. In the Upgrade Files pop-up choose a file. These files are typically downloaded from the device manufacturer site. If they are in compressed file format (Zip, Rar, or other), uncompress them to a known file location. The list of upgrade files can be modified through the File Repository.

Note: For the following devices, you must have the admin user name and password saved in Xerox® CentreWare Web in order to upgrade them: PX4i, PX6i, I-Class, H-Class, M-Class, A-Class.

4. On the Assign tab you can select the printers to which the policy applies.
   a. Group: From the drop-down list choose the groups to which you will apply the policy. If you toggle on the option to Link the Policy to Selected Group(s) then the policy will automatically be applied to any devices added to the group. The policy will also be disassociated from any printers that leave the group.
   b. Use Hub and Spoke Mode: Toggle to enable/disable the method of firmware policy upgrade. When enabled, the system will assign a device on the subnet as hub and the remaining devices will be spokes. This improves overall deployment speed to a fleet of devices, as it distributes the network load across the network since devices can request the file from other devices, rather than all devices requesting it from Xerox® CentreWare Web.
   c. Assign Printers: Select the desired printers to be part of the policy (if the policy is not linked to a group).
5. Click **Next** to continue.
6. On the Schedule tab you can schedule the time to monitor, monitor and upgrade, or schedule a date/time to run an Upgrade Only. You can schedule when, and how often to poll the results from the printer. You can set retry attempts for any devices that the version does not change after the polling window.
   a. Schedule: The options vary depending on the policy type.
      - Schedule Upgrade Only: You can choose to Upgrade Now or Upgrade Later and set a start time.
      - Monitor Policy Types: Set the Policy Check Start time.
      - For Monitor and Automatically Upgrade policies, you have the option to Hold Auto Upgrade for Manual Release. This means that you can perform a verification before the upgrade is set.
      - The Advanced settings are available with Fleet Orchestrator and offer greater flexibility for when the policies download and actually install. In addition to setting different download and install times, you can set a delay interval so that devices do not all communicate with Xerox® CentreWare Web at the same time when they call to request the file.
   b. Checking the Upgrade Results: Polling allows us to determine if the upgrade is successful because we can check if the firmware version changed.
      - Poll every: Set time in minutes.
      - Poll for a duration of: Set time in minutes.
   c. Retry: For Scheduled Upgrades you can allow up to 5 retries. For Monitor policy types, only one retry is allowed.
      - Enabled: Toggle on and off.
      - Number of Retries: Options depend on your policy type.
      - Hours Between Retries: Choose how many hours between retries. For example, if a retry is unsuccessful because a device is turned off, it might be better to wait before trying again, so that the device has time to come back online.
      - Retry Window Enabled: Enable to specify the times during which retries can run. For example, you could set the retry window to exclude morning hours.

- Retry Window Start Time: Enter start time for retry window.
- Retry Window End Time: Enter end time for retry window.

7. Click **Save**.

Firmware Upgrade Policies that are set as Monitor or Monitor and Automatically Upgrade are also reported through the Device Dashboard, so that you can see how compliant the fleet is to a given version of firmware.

Manually Releasing an Upgrade

If you have set the Hold Auto Upgrade for Manual Release option on the Schedule tab, you will need to manually release the policy upgrade from Firmware Version Policies.

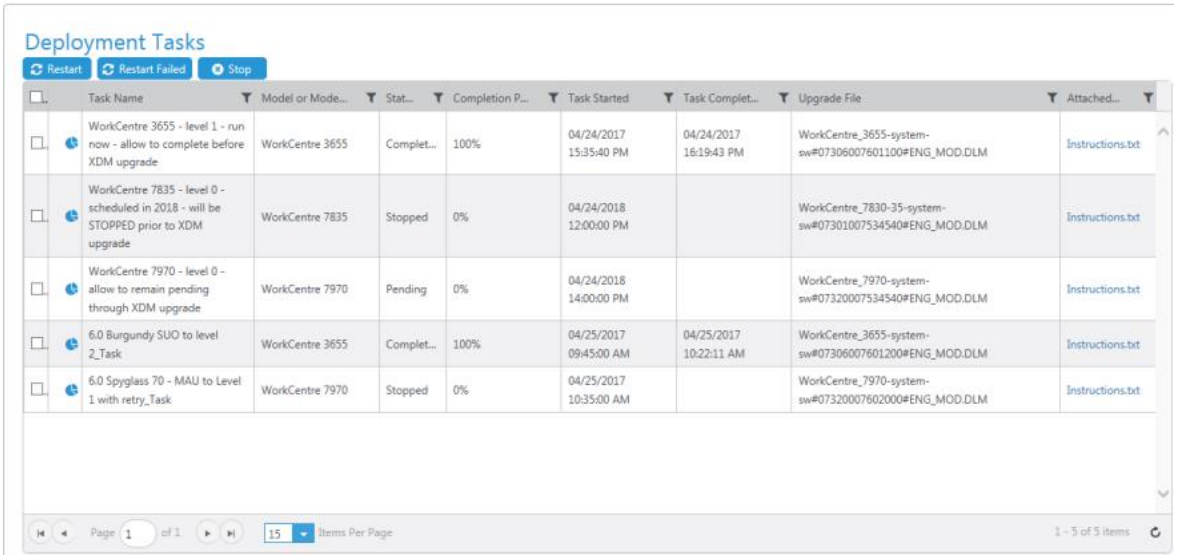
1. Select the policies that you want to release in the table. The Policy Status will be Hold for the policies you want to release. You can select multiple policies.
2. Click **Yes** in the confirmation pop-up.
3. Click **Release Upgrade**.

When upgrading the printer firmware:

- Use meaningful names for software upgrade files uploaded to Xerox® CentreWare Web.
- Add release notes and clear descriptions to identify reasons for the upgrade.
- Use dynamic groups to organize printers that need to be upgraded.
- Ensure all faults are cleared from the target devices before applying the upgrade.
- Test the upgrade file on the target machine **before** applying it to the fleet.
- Apply software upgrade files after regular business hours to increase the probability of success.
- Rediscover newly-upgraded printers so Xerox® CWW can detect changes in FW/SW levels.

Deployment Tasks

Each Deployment task is associated with a single policy. When the policy is Monitor only or Monitor and Upgrade Only, no Deployment Task is created. For any other case, there should always be one task for each policy. Think of the deployment task being created or updated to enforce the policy. The table tracks the results of the policy.



To see a graphical representation of the deployment task, click the Chart icon in the table. The Task Progress screen displays.

The feedback updates refreshes automatically while you are in this view. The Restart option allows you to restart all printers (including those that passed) in the policy. This returns the status to pending and the original firmware is removed. If you opt to Restart Failed devices only those devices with a status of warning, failed, or aborted will restart.

Editing a Firmware Policy

Follow the steps below to edit a firmware policy. You cannot edit a policy that is running.

1. In the Firmware Version Policies screen, click the Edit icon for the policy you want to revise.
2. You may modify the settings on the Identity, Assign, and Schedule tabs, as needed.
3. In addition, in the Edit Details view, there is a History tab for the policy. This shows the last change that took place. Click Task History to link to the results. In the Results table, click a row to see details from that instance.

Miscellaneous Tips

- The task list of printers to be upgraded is kept in the database so if there is a failure in the Xerox® CWW server, the process restarts at the last stage of the upgrade task.
- An upgrade task in progress can be Stopped, Restarted or Deleted. A new upgrade task cannot be started until the final device of the previous upgrade task has reached the verifying state.
- Typically, the device goes offline as it reboots to apply the upgrade file. It must be re-contacted to confirm the upgrade was successful.

12. Working with Device Passwords Policy

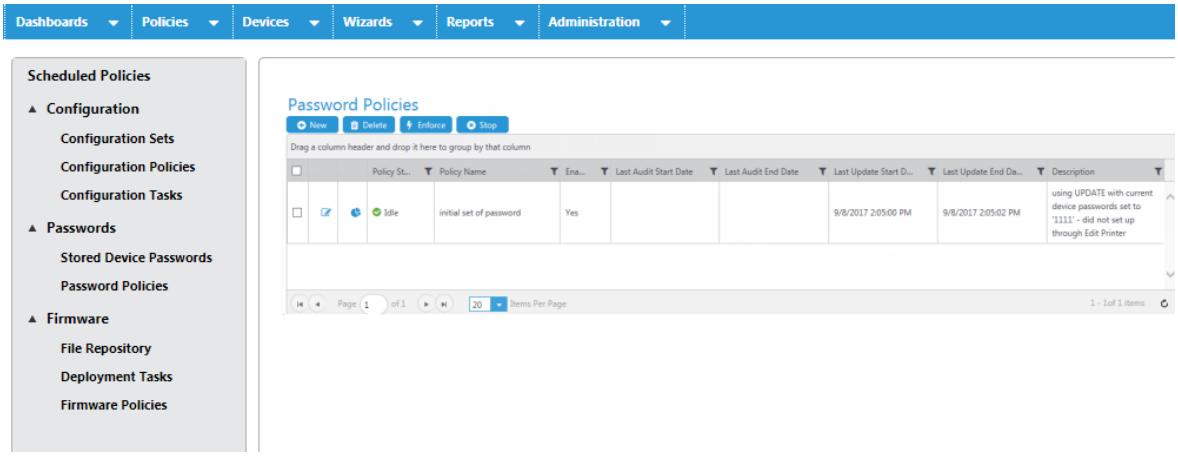
Overview

Device Password Policies allows you to manage the password policies for multiple devices across an account. This section is subdivided into:

- Password Policies
- Stored Device Passwords

Xerox® CentreWare Web can support password updates at scale (i.e., 1000 devices as part of policy/configuration set). This feature includes the following capabilities:

- Ability to track previous passwords for each device in Xerox® CentreWare Web.
- Ability to track when a passwords was set in Xerox ® CentreWare Web.
- Ability to audit known device passwords.
- Option to retry last passwords and even the default admin password to find and update the incorrect one stored in Xerox ® CentreWare Web.
- Ability to change passwords using the list of devices and show password to authentic users.
- Audit Report for verified passwords (admins only).
- Audit page for verified passwords (admins only).
- Ability to change passwords for single devices or a set of devices.
- Enable a unique password for each device.
- Ability to create unique password per device by using uniqueness pattern by prefixing Serial Number/MAC Address.
- Create unique password per device by appending a sequence number or date stamp with the password.



The Password Policies grid shows the policies that have been created and their status. Within the grid you can create, delete, enforce, and stop policies. You also have the capability to edit and view the status of the policy in the dashboard.

Creating New Password Policies

Follow the steps below to create a new password policy for a group of devices.

1. Go to Policies > Passwords>Password Policies.
2. On the Password Policies screen click New. The New Password Policy screen displays. Complete the Identity, Actions, Assign, Audit Notification, and Results Options tabs.
3. On the Identity tab click Enable to turn on the policy. Enter a name and description. Click Next.
4. On the Actions tab complete the applicable fields and click Next. One or both of the sections must be enabled.
   a. Monitor and Remediate Password section
   b. Update Password section
5. On the Assign tab you can select the printers to which the policy applies. Then click Next.
   a. Group: From the drop-down list choose the groups to which you will apply the policy. If you toggle on the option to Link the Policy to Selected Group(s) then the policy will automatically be applied to any devices added to the group. The policy will also be disassociated from any printers that leave the group.
   b. Assign Printers: Select the desired printers to be part of the policy (if the policy is not linked to a group).
6. On the Audit Notification tab indicate who will receive emails about password policy status and what the notification will contain. Enable Send E-Mail Notification to turn the notifications on and open the fields for updates; it is off by default. Click Next.
7. On the Result Options tab customize what data you want to include in the dashboards and the notifications.
8. Click Save.

After a policy runs, go to Dashboards> Password Compliance to view the related compliance dashboards.

To delete a policy, select it from the grid and click Delete. Confirm your selection.

ENFORCING POLICIES

You have the option to manually enforce policies that have been created for an account.

1. In the grid, check the policy you want to enforce.
2. Click Enforce.
3. Click the View Results icon to see the progress and results of the enforcement

Editing Password Policies

Follow the steps below to edit a password policy. You cannot edit a policy that is running.

1. In the Password Policies screen, select a policy and click the Edit icon.
2. You may modify the settings on the Identity, Actions, Assign. Audit Notification, and Result Options tabs, as needed.

In addition, in the Edit Details view, there is a History tab for the policy. This shows the last change that took place.

Click Result to link to the results. In the Results table, click a row to see details from that instance.

Viewing and Updating Passwords

In the Stored Device Password section, you can manage the passwords for devices. The grid displays all the printers in the selected groups for password policies. By default, the password is hidden, but you can select devices in the grid and click Show All Passwords to display the actual passwords in the Password column.

APPLYING A PASSWORD

Note: Updating the password within the Stored Device Password only updates it in the database to match what is currently on the device. It does not change the password on the device.

1. Go to Policies > Passwords> Stored Device Passwords.
2. In the Update Stored Device Admin Password field enter a new password. The password must be between 4 and 63 characters.
3. In the Verify Password field re-enter the same password.
4. In the grid, select the printers to which you want to apply the new password.
5. Click Apply to Selected.

IMPORTING PASSWORDS FROM CSV FILE

1. On the Stored devices page click the Import Passwords from CSV File link. This takes you to Administration > Advanced > Import Device Passwords.
2. On the Import Device Passwords screen enter or browse for the correct XSV file and click Import.
3. If you do not have a CSV file of passwords, you can click Export Template. Complete the Admin User Name, Password, Serial Number, and MAC Address fields and save the file.
4. Click Import.

13. Print Server Queues

Printer Queue Administration

CWW has many Windows® printer queue administration features including: printer queue enumeration, print driver installation, and queue creation, management, and deletion.

PREREQUISITES FOR THIS EVALUATION

In evaluating CWW, the evaluator should consider whether there is a need to administer remote print servers/queues. The evaluation paragraphs below are divided into a local server queue management exercise and an additional exercise to add print servers. If this evaluation will be managing queues on computers other than the CWW server, then the evaluator must either obtain administrator credentials for each of those servers, or enter the necessary credentials in one of the ways described below and add those print servers to CWW before installing printers and queues.

Default (local server only) printer queue administration
The CWW installer creates the CWW User by default, in order to administer the local server's print queues. This account is placed into the Administrators Group.

Advanced (local and remote servers) printer queue administration
If during CWW installation, the Advanced button was selected on the Password dialog, and the user credentials of an account with administrative privileges on the servers where managed print queues exist was supplied correctly, the evaluator should have access to the necessary print servers. If not, this setting may be modified after installation using the CentreWare® Web Configuration Utility described below.

CENTREWARE® WEB CONFIGURATION UTILITY

The CWW Configuration Utility can be used to specify the user name and password pair of an existing account that has administrative privileges on other servers.

Evaluating setting the Run As Account after installation:

1. From the CWW server desktop select; Start > All Programs > Xerox > CentreWare Web > CWW Configuration Utility.
2. Select the Run As Account tab and then select Change Account.
3. Enter the Username, Password and Domain or Workgroup for the account that has admin privileges on the servers where the evaluation queues reside.
4. Click OK.

Note: When CWW is configured with administrative privileges for remote servers, then any authenticated CWW user can perform queue administration on those servers, including print driver installation and print queue deletion.

Local Queue Management

The easiest way to evaluate the queue management features of CWW is to create a queue on the same server that the CWW server is hosted on, and then use CWW's queue view.

PREREQUISITE FOR THIS EVALUATION

As this evaluation process has not previously added the local CWW server as a Managed Print Server, the user is prompted to do so as part of the queue creation. A link is also presented to the user to add the local Managed Server.

Creating a Print Queue

1. On the Printers page, select a printer for which to create a queue, by selecting the checkbox next to it and clicking the Install button.
2. Next, select a server to install to. The local server is selected by default if previously added. If not previously installed, follow the link provided to add the local server. Then click the Continue button.
3. The saved configuration settings for printers of this type should be displayed.
4. First, attention should be paid to the driver signing policy. If CWW indicates that this server is accepting only signed drivers and the print drivers that are used are not signed, then modify the server's driver signing policy to Ignore. To do this, right click My Computer on the desktop and select Properties. Go to the Hardware tab and select the Driver Signing button. Select the Ignore setting and click Save. However, if either the CWW server or the remote server on to which the queue is installed is running Windows® XP, then the printer driver used MUST be a signed printer driver. Windows® XP does not allow a noninteractive process, which CWW is, to install an unsigned printer driver, regardless of the driver signing policy setting.
5. If this model of printer has never been installed using CWW, then configure CWW's queue setting via the Configure button.
6. If prompted with a Security Warning for a custom control from Xerox Corporation, select Yes. This enables CWW's Have Disk control.
7. Verify that the port settings are correct for the type of print device that is being installed. Most printers support either port 9100 or LPR. When in doubt, check the specifications for that printer.
8. If the customer utilizes DNS/DHCP for printer address, then select the Print via Printer's DNS name option.

9. Now, select a print driver for at least Windows® 2000. Drivers listed in the drop down can come from three places:
   a. Directly from Windows® 2000, but is not currently installed. There is no asterisk next to the driver name.
   b. A single asterisk (*) denotes Drivers that are already installed.
   c. Two Asterisks denotes (**) drivers that are in CWW driver repository, but are not installed.
10. Any print driver may be uploaded to CWW for installation by using the Have Disk button.
11. When the changes are complete, select Save.
12. For the queue name, accept the auto generated default or specify some other name. Click Finish to install the queue.
13. When the queue is successfully installed, a green check mark appears with the results. Select OK.
14. Select the printer just installed by clicking on the printer's IP address. Note the queue functions Manage and Delete Queue that are now available in the printer property page.
15. Select the Troubleshoot button, and then select the Print via Queue Test. This sends a test print to the print queue. Verify that the test page printed.
16. Now, switch to Queue view by selecting the Queues button in the tree control on the left hand side of the screen.

Note: CWW enumerates all of the print queues on a server that is added to CWW.

Edit Queue Properties

CWW provides the capability to change/edit several print queue properties that are managed by the application. Print queue properties that are available for editing include:

- Queue Name
- Queue Comment
- Queue Share Name
- Queue Location
- Queue Published in Active Directory

EVALUATING THE EDIT QUEUE PROPERTIES

1. Select the All group in the Printers page navigation window.
2. Select the printer in the previously created queue and display the printer properties page by selecting the checkbox and clicking on the display icon.
3. Select the Queue Properties button located towards the top of the page to display the printer Queue Properties page.
4. Now select the Edit button associated with the Queue Name to display the Edit Properties page for the queue.
5. Within the Queue Properties window, type Name Change Test into the Queue Name field.
6. Select the Save button.
7. Verify that the Queue Name displayed has now been changed to Name Change Test.

Installing Printers in Queues

EVALUATE INSTALLATION OF MULTIPLE PRINTERS

1. Select the All group in the Printers page navigation window.
2. Select a number of printers to install by selecting the check boxes in the All printers group display. Activate the Install feature by selecting the Install button.
3. Select a server from the Server pull down menu, then select Continue
4. Select Configure if configuration adjustments need to be made.
5. Enter configuration adjustments as required.
6. Select Save to store the configuration changes.
7. Select Finish completing the installation process.

EVALUATE SINGLE PRINTER INSTALL

1. Click Install to open the first of two Install Printer windows.
2. From the Select Server drop-down menu, select the server on which this printer is to be installed. Click Continue.
3. On the second Install Printer window, select Configure to make additional settings for the Port, Sharing status, Queue name and Driver settings.
4. After making these settings, click Save to complete the installation for this printer.

ALTERNATE METHOD TO TEST THE INSTALL MULTIPLE PRINTERS

Activate the Install wizard by selecting the Wizards tab and then selecting the Install button.

Follow the 5 step set of instructions provided by the Install wizard.

1. Select the group containing the printers to be installed.
2. Select the printers for which the queues are to be created.
3. Select the server on which to install the printer queue.
4. Select the Configure button to edit the configuration settings
5. Select Finish.

Adding Print Servers

The CWW Server administers the print servers without having to use traditional queue tools at each and every print server on the network. CWW can manage the following types of servers: Windows® 2003, Windows® 2000, and Windows® XP/Pro. CWW also provides the ability to browse a network for available domains, print servers, and Active Directory partitions. Additionally, CWW supports the selection of multiple computers per domain when adding new a new print server.

PREREQUISITES FOR THIS PORTION OF THE EVALUATION

To complete this portion of the evaluation, first establish user credentials and administrative privileges on all print servers that the evaluator is evaluating as described above in the Printer Queue Administration. To evaluate this feature, perform the following:

1. On the Printers page, select the Queues selector button.
2. Select the Add/Delete Server folder from within the Printer Queues navigation tree.

3. Enter a Server name or IP Address in the New Server IP Address or DNS Name field.
4. Click the Add button from within the Servers window.
5. Verify that the newly added server now appears in the Queues folder navigation tree.
6. To delete a Server, repeat the first three steps in this sequence, select the Server to be removed and select Delete.
7. Verify that the Server was removed from the Queues folder navigation tree.

Add/Delete Directory

Active Directory is Microsoft®'s directory service. This directory service is simply a collection of objects that represent physical and logical enterprise resources such as computers, printers, servers, shared folders, user accounts, groups, etc. CWW automatically queries the Global Catalog server of the local forest (i.e. the forest in which the CWW server resides) and provides a list of available Active Directory Partitions.

When a network printer is detected from the Active Directory Partition, CWW checks its database to determine if the printer needs to be added. If the printer does NOT already exist within the CWW Server's device database, it is added. If the printer already exists within the CWW database, the Active Directory Partition attribute is then updated for that printer's record in the database. This could be considered as another form of printer discovery.

To evaluate this feature, perform the following:

1. Verify that the evaluator has administrative privileges for any active directories that are added in this test.
2. On the Printers page, select the Queues selector button.
3. Select the Add/Delete Directory folder from within the Printer Queues navigation tree.
4. Enter an Active Directory name in the New Active Directory DNS Name field.
5. Click the Add button from within the Active Directory window.
6. Verify that the newly added Directory now appears in the Queues folder navigation tree.
7. To delete an Active Directory, repeat the first three steps in this sequence, select the Directory to be removed and select Delete.
8. Verify that the Directory was removed from the Queues folder navigation tree.

Queue Section Summary

After completing the steps in this section the evaluator should have an understanding of the following aspects of the CWW Queue capabilities.

- Be able to Add, Delete and Modify servers
- Be able to Add, Delete and Modify Active Directories
- Create, Manage and Troubleshoot print queues
- Configure individual printers

14. Generating Reports

Primary Purpose of These Features

The Reports page enables the evaluator to create, display and E-mail Graphical and Tabular reports:

Graphical Reports:

- Color by Function Usage
- Color Usage
- Function Usage
- Image Sent Usage
- Large Impression Usage
- Faults by Manufacturer Device Count
- Manufacturer Device Count
- Print Model Device Count
- Printer Status Device Count
- Printer Type Device Count
- Summary Condition Device Count

Tabular Reports:

- Printer Asset
- Printer Status
- Usage Counter History
- Alert History
- Job Accounting
- User Summary
- Audit Check
- Fleet Security
- McAfee Embedded Control
- Supply
- Password Audit

Named Reports:

- Customized versions of Graphical and Tabular Reports

The primary intended uses for reports are to provide baseline assets information, volume data for billing purposes, utilization analysis and status of printers under management. CentreWare® Web provides Standard, ready-made reports to simplify the reporting process. In addition to these Standard Reports, CWW also allows you to generate custom Named Reports for your specific application.

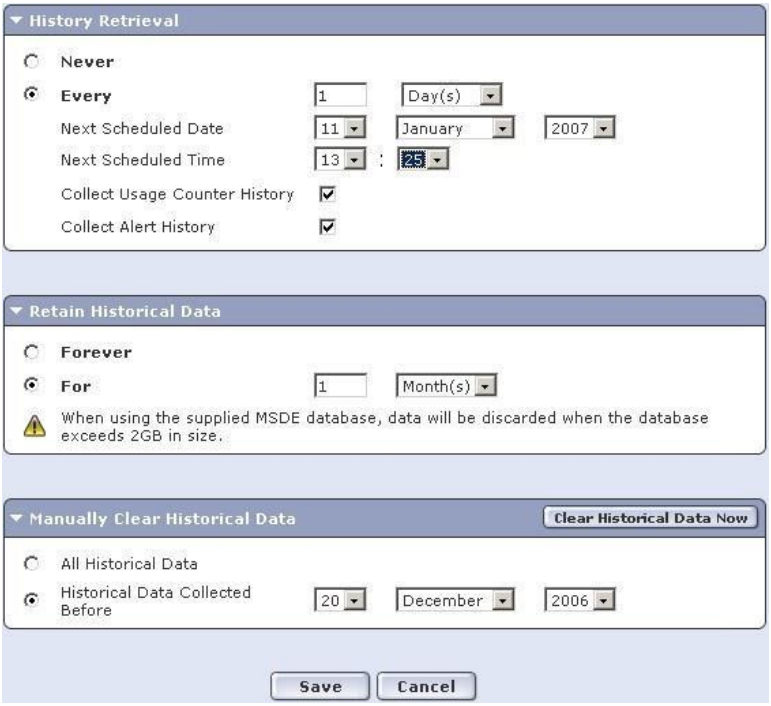
Prerequisites for This Evaluation

In order to evaluate e-mailing the reports, CWW must be configured to specify a valid SMTP Server. If this was not done during initial installation, it must be done now. To do this:

1. Select Administration > Network > E-mail and External Servers.
2. Next, enter data for the SMTP Server and E-mail address.
3. Select Save to apply the settings.

Before evaluating the page Count History and Alert History reports, it is necessary to first enable the Historical Data gathering feature. To do this:

1. Select Administration > Network > Historical Data. The following window opens.



2. Set the Schedule for Retrieval by selecting the Every radio button in the History Retrieval window. This data retrieval mechanism is designed to retrieve data once per hour, day, week or month. Use the pulldown menu to select the rate of once per day. Additional tests using this setting are performed in the next section.
3. Use the Next Scheduled Date and Next Scheduled Time drop down menus to schedule the time at which CWW executes the historical data retrieval process.
4. Check the Collect Usage Counter History and the Alert History checkboxes.
5. In the Retain Historical Data window, select how long CWW retains Historical Data. There are two radio buttons: Forever and For. Selecting Forever retains data until the database is full (2 GB). Selecting For allows you to select the retention time period from 1 day to 99 years. For this evaluation, select For 1 Month.
6. Manually Clear Historical Data enables you to clear the historical data at any time. This function allows you to clear all data by selecting the All Historical Data radio button and clicking the Clear Historical Data Now button. By selecting the Historical Data Collected Before radio button and entering a date in the pull-down boxes, you can clear all historical data prior to the data selected. For this exercise, it is not necessary to clear the database.

7. Select Save to apply these settings.

Overview of Reports Features

CentreWare Web provides Standard Graphical and Tabular Reports to simplify the process of managing a fleet of printers. These reports cover the most common areas of concern for IT professionals. The Graphical Reports functions offers four types of charts to select from based upon the type of data being displayed or the user's preferences.

The chart types include:

- **Pie Chart** – The pie chart displays the percentage of contribution of each parameter to the total on an area basis.
- **Line Chart** – The classic chart used for displaying trends.
- **Clustered Column Chart** – Compares the values across time or device category
- **Stacked Column Chart** – Compares the contribution of the values across time or device category

The graphical reports may be displayed immediately upon creation or e-mailed to one or more recipients. The e-mailed reports are a .png file.

Note: Pie Charts are limited to displaying a maximum of 6 variables. When the number of variables exceeds 6, the top 5 are displayed and the remaining variables are combined and displayed as Other. For the Manufacturer Device Count, Printer Model Device Count and Printer Status Device Count reports, column charts are limited to displaying a maximum of 21 variables. When the number of variables exceeds 21, the top 20 are displayed and the remaining variables are combined and displayed as Other.

STANDARD GRAPHICAL REPORTS

CentreWare Web provides eleven Standard Graphical Reports:

- **Function Usage** - Graphs the functional usage for the specified devices. Compares Print Impressions, Copy Impressions, Fax Impressions and Images Sent.
- **Color by Function Usage** - Graphs the usage of the color for the specified devices. Compare: Color Impressions and Black Impressions.
- **Image Sent Usage** - Graphs the usage of sent images for the specified devices. Compare: Embedded Fax, Internet Fax, Server Fax, E-Mail and Network Scanning Images sent.
- **Printer Model Device Count** - Reports the device count by Printer Model for the specified devices.
- **Summary Condition Device Count** - Reports the device count by Summary Condition used to display the device icon for the specified devices. Summary Conditions are: Okay, Error, Warning, Ignored, NonCompliant, Non-Networked, Unknown, etc.
- **Faults by Manufacturer Device Count** - Reports the count of devices in the Error State by Manufacturer for the specified devices.
- **Color Usage** - Graphs the usage of the color for the specified devices. Compare: Color Impressions and Black Impressions.
- **Large Impression Usage** - Graphs the usage of the large impressions for the specified devices. Compare: Large Impressions and Normal Impressions.
- **Manufacturer Device Count** - Reports the device count by Manufacturer for the specified devices.
- **Printer Type Device Count** - Reports the device count by Printer Type for the specified devices. Printer Types are: Network Printer, Non Networked, Non Compliant, etc.

- **Printer Status Device Count** - Reports the device count by Printer Status for the specified devices. Printer Statuses are: Up and Running, Printing, Warming Up, Door Open, Input Tray Missing, etc.

STANDARD TABULAR REPORTS

CentreWare Web provides four Standard Tabular Reports:

- **Printer Asset Report** - lists all printers discovered by CWW on the network.
- **Printer Status Report** - lists printers that may need attention.
- **Usage Counter History Report** - lists the printer usage counts only for printers in a selected group. CWW requests information provided in the printers SNMP usage counters on a daily basis as scheduled.
- **Alert History Report** - lists the alerts for the printers in a selected group. CWW requests information provided in the printers SNMP alert table on a daily basis as scheduled.
- **Job Accounting Report** – details of each print job sorted by printer.
- **User Summary Report** – details of each print job sorted by user.
- **Audit Check Report** – results of audit tasks for specified devices.
- **Fleet Security Report** – details of security related settings of Xerox printers.
- **McAfee Embedded Control Report** – list of McAfee Embedded Control events.
- **Supply Report** – replaceable supplies list by printer with current and maximum capacity information.

The possible report file formats for all report types supported by CentreWare include:

- **All** - send the report in all the possible formats (CSV, HTML and XML)
- **Comma Separated Value** (CSV) - for database and spreadsheet importation
- **Hyper Text Markup Language** (HTML) - for immediate viewing
- **Extensible Markup Language** (XML) - for importation to Windows® XP-based apps, etc.

The amount of data AND the order of data that appear within these reports can be customized by using the Configure Report feature. Some reports include additional default fields that are added to the user defined fields. For example, the Usage Counter History report includes a page count column and a page count since power on column to the Included fields, while the Alert History report includes the polling date and detailed machine status information to the Included fields. As a result, the report file sizes can vary greatly.

Reports can be obtained from CWW via an E-mail message that contains up to 3 URLs (one for each report format) to the actual files stored on the server. CWW only maintains the last report that was generated by the server; there is No repository for previously generated reports.

Two of the CWW reports, the Usage Count History report and the Alert History reports provide the following additional configuration features to enhance the usefulness of each report:

- **Grouping** - sorts the results of the report by one or two device properties.
- **Time Span** - specifies the range of historical data to be included within the report by time. – Configurable Time Span options are as follows:
- **All Data** – all data contained within the CWW database
- **Latest Records** – most recent record for each printer
- **Previous** – by number of days, weeks, months, or years
- **Fixed Dates** – specify start date, end date and specific times

The CWW database can store up to two years of report related data generated by the Historical Data Gathering function. Each report file contains a Site name and Server name of the CentreWare® server that generated a report. This becomes useful when multiple CWW servers are deployed within a large enterprise.

NAMED REPORTS

Named Reports can be created to fit the particular needs of an organization. Named Reports uses the Standard Graphical and Tabular Report types as starting templates for customization. In addition to the report name, the contents and data organization are optimized based upon your particular organization's needs. Named Reports retain the same functionality as Standard Reports. Named Reports are examined later in this section.

Evaluating Graphical Reports

PIE CHART

This evaluation uses the Function Usage Report to demonstrate the Pie Chart.

1. From the Reports tab, open the Function Usage Report page by selecting Reports > Standard Graphical Reports > Functional Usage Report.
2. In the Graph Options window click the Pie Chart radio button for the Chart Type.
3. Check the Display Values checkbox.
4. Under Report Actions, choose the Display Report action. A new page opens, displaying the chart. Note that the values for each section of the chart are reported.
5. Close the new page.
6. In the E-mail Recipients window, add a recipient's e-mail address and then select Save.
7. Under Report Actions, choose the Send Report action. A file is E-mailed to the specified recipient.
8. Verify that the E-mailed file contains the previously displayed Pie Chart.

LINE CHART

This evaluation uses the Color Usage Report to demonstrate the Line Chart.

1. From the Reports tab, open the Function Usage Report page by selecting Reports > Standard Graphical Reports > Color Usage Report.
2. In the Graph Options window click the Line Chart radio button for the Chart Type. Note that for this report, the X-Axis (independent variable) is automatically configured to be Report Interval (time). The Device Category radio button and its corresponding sub-category radio buttons are disabled.
3. In the Time Span window, select the desired time interval for the report. For this evaluation, select All.
4. In the E-mail Recipients window, add a recipient's e-mail address and then select Save.
5. Under Report Actions, choose the Display Report action. A new page opens, displaying the chart. This chart displays two curves showing Black & White and Color usage.
6. Close the new page.
7. Under Report Actions, choose the Send Report action. A file is E-mailed to the specified recipient.
8. Verify that the E-mailed file contains the previously displayed Line Chart.

CLUSTERED COLUMN CHART

This evaluation also uses the Color Usage Report to demonstrate the Clustered Column Chart. The clustered column chart displays columns or bars for each variable, clustered together according to the independent variable chosen (printer model, manufacturer, etc.)

1. From the Reports tab, open the Function Usage Report page by selecting Reports > Standard Graphical Reports > Color Usage Report.
2. In the Graph Options window click the Clustered Column Chart radio button for the Chart Type. Note that for this report, the X-Axis (independent variable) is automatically configured to be Device Category and that the corresponding sub-category radio buttons are enabled. For this chart, the Report Interval radio button is also enabled as an option. Select the Device Category radio button.
3. Select the Models radio button. This produces a chart showing the Color vs. Black & White usage on a per model basis.
4. In the E-mail Recipients window, add a recipient's e-mail address and then select Save.
5. Under Report Actions, choose the Display Report action. A new page opens, displaying the chart. This chart displays two columns for each model printer showing the Black & White and Color usage.
6. Close the new page.
7. Under Report Actions, choose the Send Report action. A file is E-mailed to the specified recipient.
8. Verify that the E-mailed file contains the previously displayed clustered column chart.

STACKED COLUMN CHART

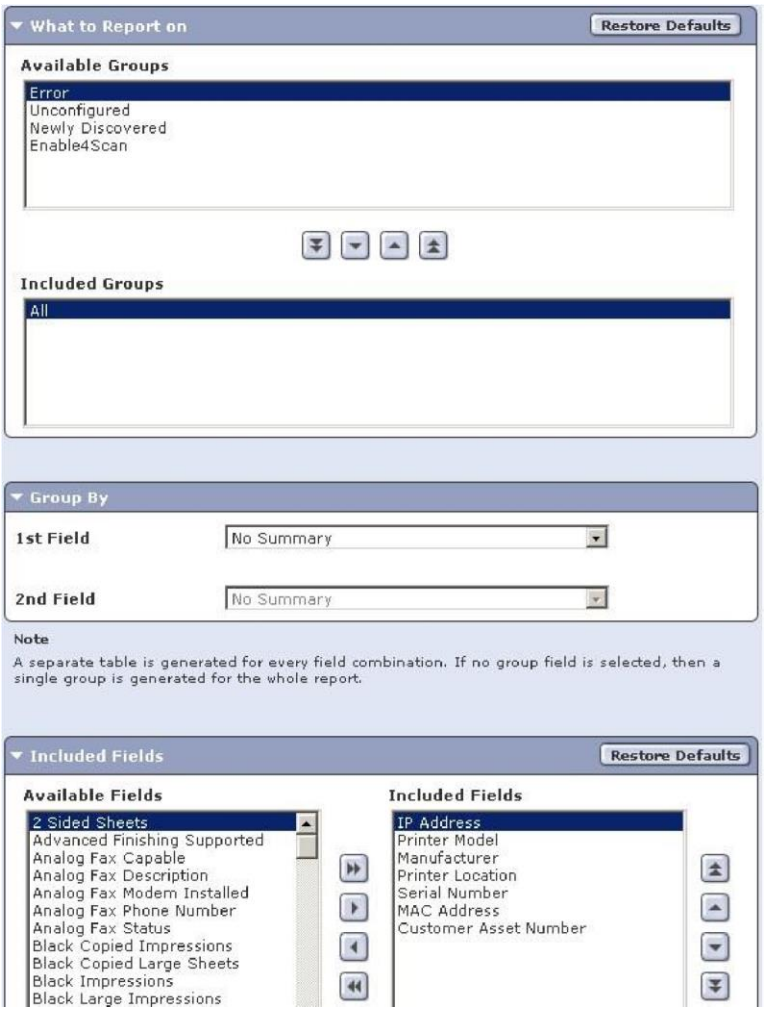
Again we use the Color Usage Report to demonstrate the Stacked Column Chart. This chart displays columns or bars for each dependent variable, stacked upon each other. This chart type is good for providing a quick visualization of the relative percentages of each variable.

1. From the Reports tab, open the Function Usage Report page by selecting Reports > Standard Graphical Reports > Color Usage Report.
2. In the Graph Options window click the Stacked Column Chart radio button for the Chart Type. Note that for this report, the X-Axis (independent variable) is automatically configured to be Device Category and that the corresponding sub-category radio buttons are enabled. For this chart, the Report Interval radio button is also enabled as an option. Select the Device Category radio button.
3. Select the Models radio button. This produces a chart showing the Color vs. Black & White usage on a per model basis.
4. In the E-mail Recipients window, add a recipient's e-mail address and then select Save.
5. Under Report Actions, choose the Display Report action. A new page opens, displaying the chart. This chart displays two columns for each model printer showing the Black and White and Color usage.
6. Close the new page.
7. Under Report Actions, choose the Send Report action. A file is E-mailed to the specified recipient.
8. Verify that the E-mailed file contains the previously displayed clustered column chart.

Evaluating the Standard Tabular Reports

CONFIGURE REPORT

1. From the Reports tab, open the Configure Report page by selecting Standard Tabular Reports and the desired report.
2. Select the All group in the Available Groups window by selecting it and then use the ▼ icon to move the All group into the Included Groups window.



3. All group is now located in the Included groups.
4. Setup the Group By by selecting 1st field and 2nd field. This further sorts the printer information in the Report.
5. Select the different fields to be included in the field. The evaluator can include all the available fields if they want.
6. Select the Add button in the Recipients window and add a qualified e-mail to send the report to.
7. In the E-mail Message Body window, check the radio button next to Custom to specify a custom named subject line. Populate the field with text that reads: Testing Standard Tabular Report.
8. Use the default HTML file format from the Report Format
9. Set the Scheduled Period to Every one (1) hour.
10. Select the Language: for example - English (US).
11. Select the Save button.

After the scheduled time has elapsed:

1. Check the E-mail recipient's account (evaluator's E-mail account) for the presence of a CWW reports related E-mail message. The subject line should read: Testing Standard Tabular Report.
2. Open the E-mail and click on one of the URLs provided. Inspect the file contents to become familiar with the type of data generated by the report.

3. Save the file to the local desktop and inspect the file size, if necessary.
4. After evaluation is complete, return to the Schedule Period window for this report and set the period to Never to prevent receiving hourly reports.

Note: The Alert History report contains only those alert(s) which are present within the printer when the CWW's Data Gathering function queries the printer. It does not represent a fault log for the machine.

Because of the way in which CWW gathers and stores this data, it is recommended that the retrieval times be set to an active use time as opposed to an idle time (12:00 AM), where the status is likely to be something less meaningful, such as 'machine in idle state', or 'machine in energy saver mode'.

Named Reports

Named Reports are configured in the same manner as Standard Reports and are available in both Graphic and Tabular formats. We'll walk through one report format as an example. Other Named Reports can be created in a similar fashion. For this report, we'll assume that we want a report to determine which printers in our fleet can print in color.

To create a Named Report:

1. Select Reports > Named Reports. The following window opens:

2. Select New Named Report.

3. Select Tabular from the Category pull-down box.

4. Select Type from the pull-down menu.
5. For this evaluation, select Asset Reports.
6. In the Report Template box, select Printer Asset Report (Standard).
7. Select Continue.
8. In the General Properties window enter the report name in the textbox. For this evaluation enter Custom Asset Report 1.
9. In the Comment box enter Color Printers.
10. Select the All group in the What To Report On / Available Groups window by selecting it and then use the icon to move the All group into the Included Groups window.
11. Setup the Group By by selecting 1st field and 2nd field. This further sorts the printer information in the Report.
12. In the Included Fields window, select Color Capable in Available Fields and click on the icon to add this to the Included Fields.
13. Select the Add button in the Recipients window and add a qualified e-mail to send the report to.
14. In the E-mail Message Body window, check the radio button next to Custom to specify a custom named subject line. Populate the field with text that reads: Testing Custom Asset Report.
15. Use the default HTML file format from the Report Format.
16. Set the Scheduled Period to Every one (1) hour.
17. Select the Language: ex. - English (US).
18. Select the Save button.

After the scheduled time has elapsed:

1. Check the E-mail recipient's account (evaluator's E-mail account) for the presence of a CWW reports related E-mail message. The subject line should read: Testing Custom Asset Report.
2. Open the E-mail and click on one of the URLs provided. Inspect the file contents to become familiar with the type of data generated by the Asset/Status report.
3. Save the file to the local desktop and inspect the file size, if necessary.
4. After evaluation is complete, return to the Schedule Period window for this report and set the period to Never to prevent receiving hourly reports.

Report Section Summary

After completing the steps in this section the evaluator should have an understanding of the following aspects of the CWW Report capabilities:

- Become familiar with the various types of reports that are available with CWW.
- Be able to set up special data collection for each of the report types to best fit the evaluation environment.
- Schedule when reports are to be generated.
- Create customizable reports on demand.
- Set up E-mail distribution of reports.
- Create and use Named Reports.

15. Functions Within Wizards

Wizards Overview

The Wizards page provides step by step procedures for accomplishing certain tasks using CWW. Hints are available on screen that assists the evaluator to install, troubleshoot, upgrade, and clone printers on the evaluator's network.

Getting Started Wizard

The Getting Started Wizard is described in Section 2.

Install Printers Wizard

The Install Printers Wizard installs printers in server queues. To use the Wizard:

1. Select Wizards > Install Printers. The Install (Step 1 of 4) window opens.
2. Select the All printer Group in the Select Group window and click Continue.
3. The Install Group: All (Step 2 of 4) window opens. Select one or more printers by checking their checkboxes and then click Continue.
4. If a Managed Server has been configured in CWW, select it and click Continue and proceed with step 6. Otherwise:
   a. Click Add a Managed Print Server in the Add Servers and Active Directories window.
   b. In the Add/Delete Managed Print Server window either:
   c. Manually add a server using the Manual Entry textbox and the ▶ icon.
   d. Select the Domain from the drop-down menu.
   e. Select the server in the Available Computers box.
   f. Use the ▶ icon to move the server into the Selected Computers window.
   g. Click Continue. After the server has been configured, repeat step 1 - 4.
5. The Install Group: All (Step 4 of 4) window is displayed. All of the fields automatically populate. For this evaluation, select these default setting by clicking Finish.

Troubleshoot Printers Wizard

The Troubleshooting Wizard is designed to help half-split network printing related problems for multiple print servers/multiple printers (up to 25 print servers/printers) at one time. Once the desired printer(s) have been selected for analysis, the Troubleshooting wizard automatically pings those printers and any associated print servers.

The user has the option to continue additional testing on an individual printer using the printer's embedded web page via the Manage Printer button.

The Print Server's Internet Print Service web page accessed via the Manage Queues button, can submit a test page directly to the printer via Port 9100 to verify a print path, or can submit a test page directly into the associated print queue via an RPC.

TROUBLESHOOTING WIZARD

1. Insert a fault into a printer (e.g. open a cover when running a print job, open a paper tray, pull out the printer cartridge, etc.).
2. Insert a print queue related fault on another printer's associated print server. (e.g. pause the queue, select the printer Properties screen to change the security settings, etc.).
3. Select Troubleshoot from the Wizards tab.
4. Select All for the group to query for available printers.
5. Select the faulted printer and the printer with the associated print server fault for troubleshooting
6. After several moments, CWW displays the Troubleshooting wizard results.
7. Select the Test button for either the faulted printer or the printer with the faulted print queue.

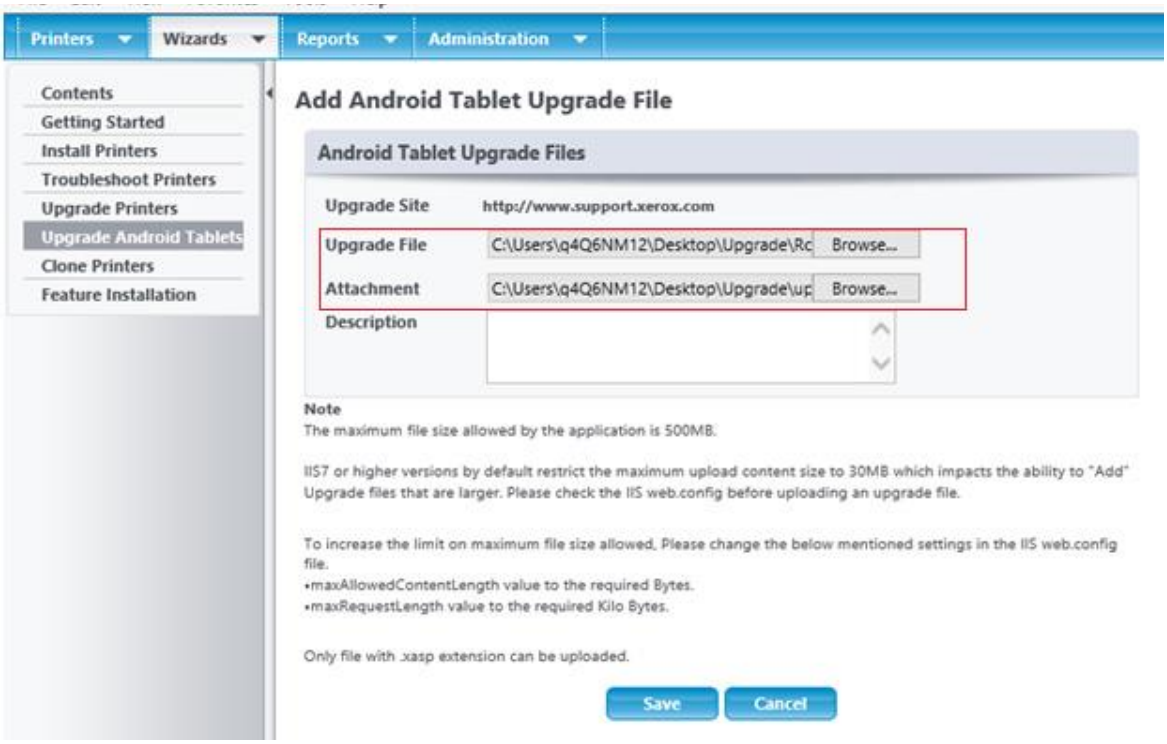
Using the Upgrade Android Tablets Wizard

In order to use this feature, Upgrade Android Tablet must be enabled under Administration. This enables an administrator to upload and schedule the software package. The multifunction printer must be discovered by Xerox® CWW for it to access software upgrades. Xerox® CWW supports more than one Android Upgrade package.

ADDING AN ANDROID TABLET UPGRADE FILE

Follow the steps below to add a new Android tablet upgrade file

1. Go to Wizards>Upgrade Android Tablets.
2. Click Add / Delete Files in the Upgrade File Actions menu.
3. Under File Actions click Add.
4. Complete the fields on the Add Android Tablet Upgrade File page.
   a. Upgrade File: Browse to the file you want to upgrade.
   b. Attachment: If applicable, upload relevant documentation for the upgrade. Word, (.doc). text (.txt), PowerPoint,(.ppt), and Adobe (.pdf) files are supported.


Printers
Wizards
Reports
Administration
Contents
Getting Started
Install Printers
Troubleshoot Printers
Upgrade Printers
Upgrade Android Tablets
Clone Printers
Feature Installation
Add Android Tablet Upgrade File
Android Tablet Upgrade Files
Upgrade Site
http://www.support.xerox.com
Upgrade File
C:\Users\q4Q6NM12\Desktop\Upgrade\Rc
Browse...
Attachment
C:\Users\q4Q6NM12\Desktop\Upgrade\up
Browse...
Description
Note
The maximum file size allowed by the application is 500MB.
IIS7 or higher versions by default restrict the maximum upload content size to 30MB which impacts the ability to "Add" Upgrade files that are larger. Please check the IIS web.config before uploading an upgrade file.
To increase the limit on maximum file size allowed, Please change the below mentioned settings in the IIS web.config file.
•maxAllowedContentLength value to the required Bytes.
•maxRequestLength value to the required Kilo Bytes.
Only file with .xasp extension can be uploaded.
Save
Cancel

5. Click Save. The file is uploaded and displays in the list of upgrade files.

You may overwrite this file with a new file or delete it from the Upgrade Android Tablet page. To edit, click the pencil icon and then upload new files to overwrite the current files. To delete select the file and click Delete from the File Actions menu.

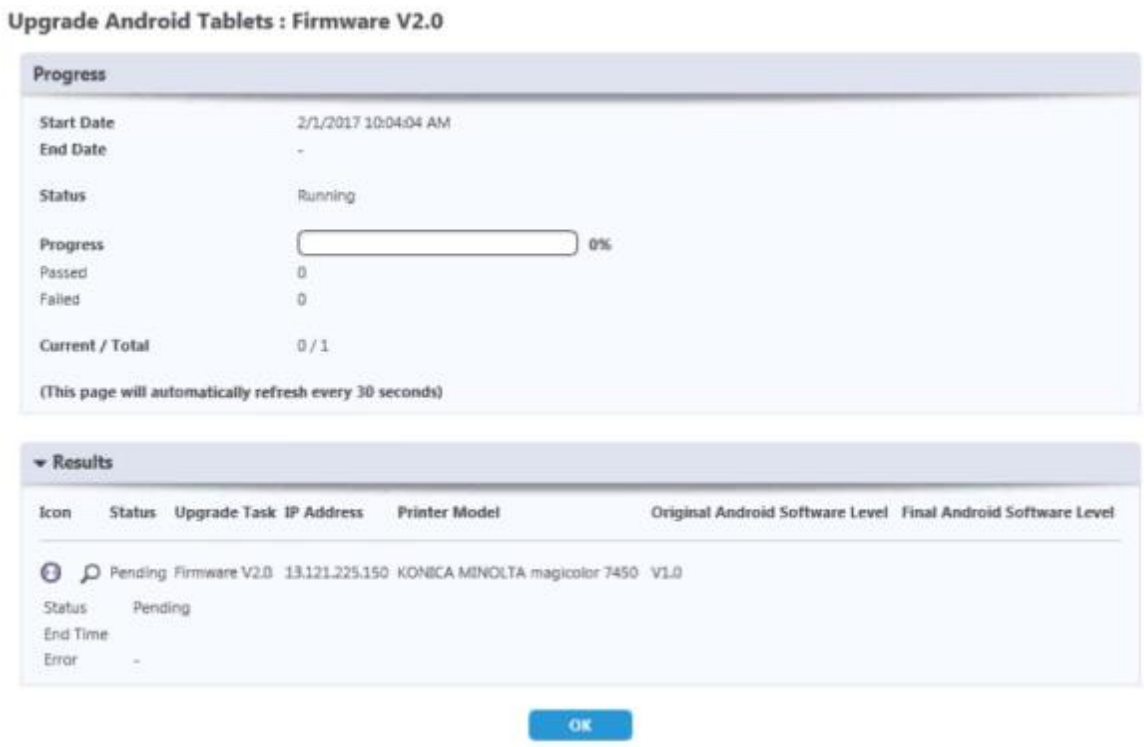
SCHEDULING AN ANDROID TABLET UPGRADE FILE

Administrators can create a new schedule to upgrade software for multifunction printers. Administrators can select one or more android enabled printers to upgrade using the schedule. The uploaded software package will be available for the android device at the scheduled time.

The device can report the installation status to Xerox CWW, and Xerox CWW can record the installation status. Administrators can also see the progress in a detailed view of the schedule.

Follow the steps below to schedule an upgrade.

1. Go to Wizards>Upgrade Android Tablets.
2. Click Schedule Upgrade.
3. Either select an upgrade file and click Continue.or click Add/Delete Files.if there is not an upgrade file available. Follow the steps in the Adding an Android Tablet Upgrade File section above. Click Back to return to the scheduling workflow.
4. In the Group drop-down, choose the printer group to have its tablets upgraded. Click Continue.
5. In the next screen select the printers that have an attached Android tablet to upgrade. Only Android tablets display. If you have not done so already, you should go to Table Preferences and make sure that the Android Device and Android Firmware columns display in the grid. Click Continue.
6. Set a task name and schedule you time. You may opt to upgrade now or enter a future time and date to upgrade. Click Finish.
7. The task displays on the Upgrade Android Tablets screen. The default task status is Pending.



STOPPING OR RESTARTING AN UPGRADE

Administrators can stop an upgrade task, so that upgrades are not available to the Android tablets. Upgrade tasks can be stopped while their status is Running or Pending.

Follow the steps below to stop an upgrade.

1. Select a task and click Stop Upgrade.
2. The task status and individual printer status change to Stopped. Tasks with a status of Completed, Error, or Completed with Errors cannot be stopped.

Though a task is stopped, an Android tablet can report the status of the installation if the upgrade package has already been downloaded before the task was stopped. Xerox CWW accepts this request and each corresponding status is updated.

You may also restart an upgrade task. All tasks, regardless of their status, can be restarted. A restarted task works the same way a newly scheduled task works. The task status changes to pending after restart.

Follow the steps below to restart an upgrade:

1. Select a task and click Restart Upgrade.
2. The task status and printer status change to Pending.
3. If the upgrade package has been downloaded before the task is restarted, the tablet can still report the status using the Report Software Update Status.

DELETING AN UPGRADE

You may delete an upgrade regardless of task status. However, please be aware that once you delete an upgrade task all the information related to the upgrade will be removed from the application.

Clone Phaser Printers Wizard Overview

The CWW Clone Phaser Printers Wizard is designed to simplify the printer configuration process typically performed each time a printer is deployed across a corporation. This cloning feature copies the configuration settings from one printer to a maximum of 25 printers of the same model running at the same firmware level. This option is used by some Phaser devices. To clone AltaLink devices or ConnectKey devices with software versions 073.xxx.147.07400 or later, go to Using the Clone Printers Wizard. To clone all other devices, use the Upgrade Wizard.

Note: The CWW Clone Phaser Printers Wizard does NOT transfer firmware/software to the target printers; it only transfers the printer configuration settings.

PREREQUISITES FOR THIS EVALUATION

The CWW Cloning Wizard can only be evaluated if the customer has two or more printers of the same model running with the same firmware level.

Examples of Xerox printers which support the CWW Cloning Wizard are as follows: (In addition to other models)

- DocuPrint models N17/24/32/40, C55, NC60, N2025/2825, N2125, N3225/4025, & N4525
- Phaser 1235/5400

Note: CWW requires that HTTP be enabled on clone capable Xerox printers.

CLONE PHASER PRINTERS WIZARD

To use the Cloning Phaser Printers Wizard:

1. Select Cloning Phaser Printers from the Wizards tab.
2. Select All printers from the Group drop-down menu to query for available source printers.
3. Select the printer configured as the source printer. Xerox® CWW checks to confirm that the printer supports a compatible type of cloning.
4. Select All printers from the Group drop-down menu to query for available target printers.
5. Select the target printers from the list of qualifying target printers and then click Finish. Xerox® CWW clones the settings from the source printer to the selected target printers. The results of the cloning process display when the operation is complete.
6. Generate another configuration page at the target printer and then compare similar attributes to the original target printer's configuration page. Configuration values should now be different from the original target printer's configuration page. However, similar attributes from the newly cloned printer's configuration page should be identical, in most cases, to the source printer's configuration page.

Note: Cloning may be disabled for a device from the Devices tab. Select the device you want to modify. In the Action menu choose Edit Properties. Go to Security>Disable Services. In the Disable Services section in the Cloning field, choose Yes from the drop menu.

Using the Clone Printers Wizard

Use this wizard to clone AltaLink devices or ConnectKey devices with software versions 073.xxx.147.07400 or later by communicating with the device and receiving a status back.

Note: The ConnectKey® device you wish to clone must be running the spar release from February 2017 or later for the Discovery Connect Software. In addition, the AT&T solution software must be loaded on the ConnectKey® devices.

Follow the steps below to add a clone file.

1. Select Clone Printers from the Wizards tab.
2. Click Add/Delete Files from the Clone File Actions menu.
3. In the File Actions menu select Add.
4. On the Add File complete the following fields
   a. Choose a Model from the drop-down list.
   b. Browse to the Clone File (.DLM).This is the file that contains all the settings for the model you are cloning.
   c. Add an Attachment if you want to include instructions.
   d. Enter a Description.
5. Click Save. This clone file is now available on the Add / Delete Clone Files page.

To delete a clone file, simply select the file you wish to delete in the Add / Delete Clone Files page and click Delete. Please note, if the clone file is associated with any tasks you will not be allowed to delete it.

Follow the steps below to clone a printer.

1. Select Clone Printers from the Wizards tab.
2. In the Clone Tasks menu select Schedule Clone.
3. Step 1 displays a list of clone files. Although deleted clone files still display in the list, you may not select them. Choose a clone file and click Continue.
4. In Step 2 select the group that contains the printers you want to clone. (You will choose the specific printers later). Click Continue.
5. In Step 3 select the devices you want to clone and click Continue. Note: A filter exists to choose the model of the clone file. The model of the clone file must match the target device model.
6. In Step 4 schedule the clone process. Complete the following fields.
   a. Enter a name for the Clone Task Identity.
   b. Choose to run the clone process as a device administrator or a network user. If you pick network user, you will need to enter your user credentials. Note: Network User is a more secure option.
   c. Schedule the cloning. Click Clone Now to run the clone process immediately. or click Clone Later and enter a date and time
7. Click Finish.
8. Check your progress in the View Clone Task Details page.

Feature Installation

The Feature Installation Wizard is designed to simplify enablement of Features across a fleet of devices, especially in an environment where there are many MFDs and manual Feature Installation would be

undesirable. This is accomplished by selecting a group of devices and a csv file that contains the serial numbers and corresponding Feature Installation Keys, and then uploading the CSV file to that group of devices. Upon receiving the csv file, each device locates its matching serial number in the file, and applies the associated key.

Notes

The following Feature Installation Keys are supported:

1. Universal Installation Key – a single key that works on all machines
2. Individual Serial Number Key – a key which can only be installed on a device with a specific serial number
3. High Security Serial Number Key – a key which can only be installed on a specific device 4. Site License Key – a key which can only be installed a specified domain

The Keys consist of 12 alphanumeric characters. The first 4 characters correspond to the Feature to be Installed, the following 8 characters are either the serial number or an encoding depending on the key type.

The format of the Feature Installation Key CSV File is as follows:

<Serial_Number>, <Key>

Where

<Serial_Number> is the serial number of the device, or a wildcard (*) which can be used for the Universal Installation Key or Site License Key

<Key> is one of the above supported types.

FEATURE INSTALLATION WIZARD

1. Add the Xerox printers to the CWW database via the discovery process. Refer to the Discovery section for more details.
2. From the Printers page, select the printers to be evaluated and create a group.
3. Select Feature Installation from the Wizards menu.
4. Select the group created in previous step. Press Continue.
5. Select the devices to receive the Feature Installation csv file. Press Continue.
6. Enter the filename of the Feature Installation Key CSV File. When the Upload button is pressed, the file is sent to each of the devices selected and a progress bar is displayed.
7. Verify that the desired features were installed by checking the web UI of the devices, Feature Installation page under the Properties tab.

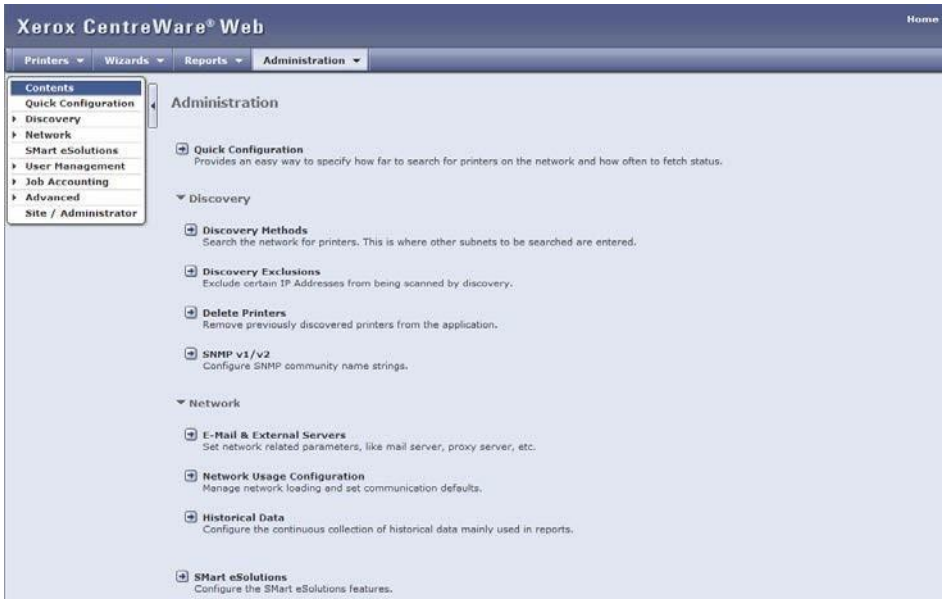
16. Administration Functions

Administration Menu Overview

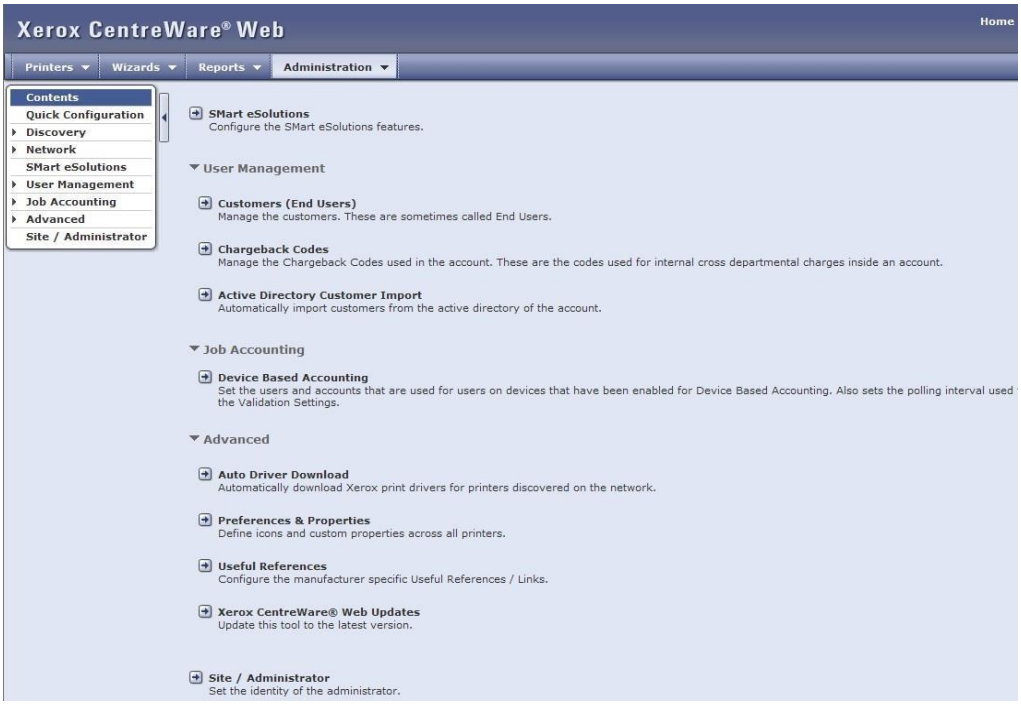
The Administration pages provide access to the following functions:

- Quick Configuration
- Discovery exclusions and methods
- Network configurations
- SMart eSolutions (Automatic Supplies Replenishment and Auto Meter Readings enabled)
- Job Accounting
- Custom field setup
- Application updating
- Site/Administration identity

This section provides an overview of the main Administration page and provide evaluations for all of the features except Quick Configuration and Discovery, which are contained in Device Discovery.



- Quick Configuration lets the evaluator determine how far to search for a printer on a network checking different discovery methods and how often to fetch for status.
- Discovery finds printers on the network. A Discovery can be tailored to find individual printers or specific groups of printers or to Exclude certain devices. The Delete Printers page is used to remove printers from CWW management. The SNMP v1/2 option specifies SNMP community names to use when retrieving information from printers.


Xerox CentreWare® Web
Home
Printers
Wizards
Reports
Administration
Contents
Quick Configuration
Discovery
Network
SMart eSolutions
User Management
Job Accounting
Advanced
Site / Administrator
SMart eSolutions
Configure the SMart eSolutions features.
User Management
Customers (End Users)
Manage the customers. These are sometimes called End Users.
Chargeback Codes
Manage the Chargeback Codes used in the account. These are the codes used for internal cross departmental charges inside an account.
Active Directory Customer Import
Automatically import customers from the active directory of the account.
Job Accounting
Device Based Accounting
Set the users and accounts that are used for users on devices that have been enabled for Device Based Accounting. Also sets the polling interval used
the Validation Settings.
Advanced
Auto Driver Download
Automatically download Xerox print drivers for printers discovered on the network.
Preferences & Properties
Define icons and custom properties across all printers.
Useful References
Configure the manufacturer specific Useful References / Links.
Xerox CentreWare® Web Updates
Update this tool to the latest version.
Site / Administrator
Set the identity of the administrator.

The number of community names affects the time to complete a Discovery as the operation is repeated for each community name.

- **Network** page enables the specification of configuration options for CWW that determine how the application works on the evaluation network (i.e. configuration of E-Mail and External Servers.) Network Usage provides the network "switch" where an administrator can shut down CWW network communications to isolate a problem or evaluate a feature. Historical Data Gathering defines the specified time and selected groups of printers to gather information from.
- **SMart eSolutions** page provides a mechanism to enable SMart eSolutions. SMart eSolutions supports communication to Xerox Communication Server with meter reads and supplies status on registered devices. Printers must be signed up for Automatic Supplies Replenishment services, registered with Xerox.
- **User Management** page allows Customers (End Users) to be created, imported from a formatted file, or imported from an Active Directory. Customers can then be associated with Chargeback codes that can be used during Job Tracking activities.
- **Job Accounting** page is used to configure the Device Based Accounting capabilities of Xerox devices. These devices track information regarding users and jobs that they submit to devices. Typically, this information is used at a department level to track device usage and for charge-back purposes.
- **Advanced** page provides a means to:
  - Specify up to five custom fields for printers, and
  - Update the application and define links to other web pages/sites.
- **Site Administrator** is where the Administrator/ site identity information is populated.

Discovery

Discovery is the process that CWW used to detect devices on the network. Discovery finds new Printer related devices and retrieves identity and capability information about the devices. In addition to the capability of selecting the Discovery Methods, the evaluator can exclude printers or subnets from discovery, delete printers that have been discovered and can control SNMP communication options.

DISCOVERY METHODS

IP Easy Discovery

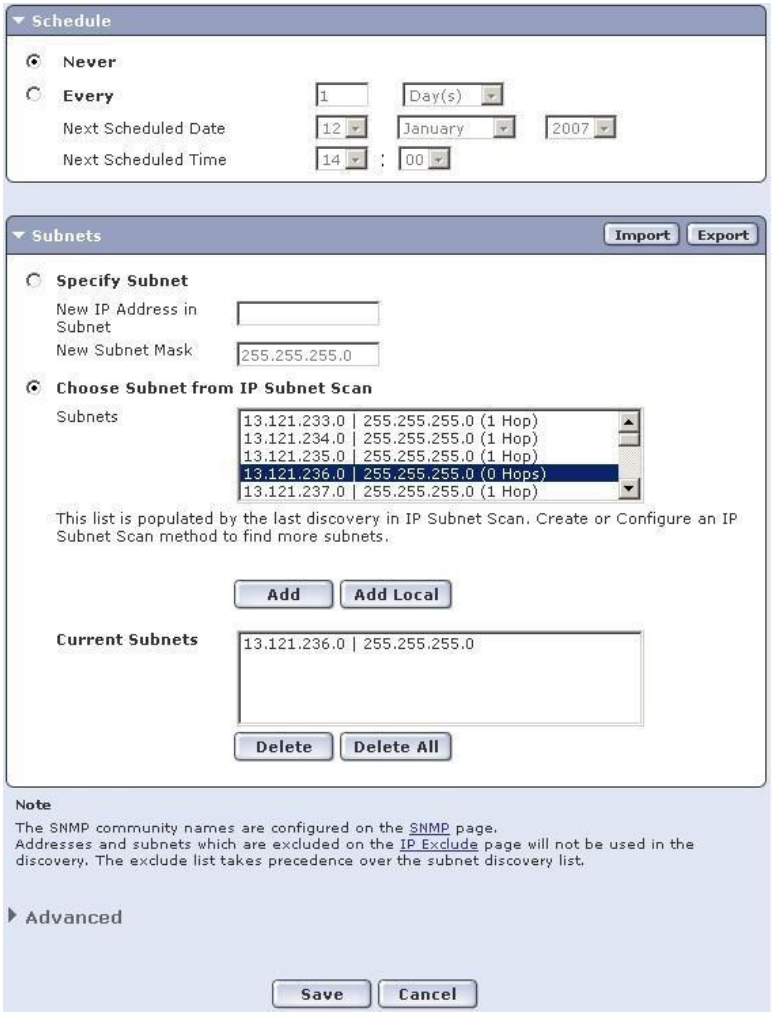
The IP Easy Discovery was already configured during the initial installation and set-up of CWW.

IP Broadcast

Broadcasts are done on the specified subnets for devices. This is the fastest method of finding devices.

To evaluate this feature:

1. Select Administration > Discovery > Discovery Methods.
2. In the Actions box select New Discovery.
3. In the Type window select the IP Broadcast radio button. IP Broadcast appears in the name box at the top of the page.
4. In the Create New Discovery Based Upon box select either Blank Discovery or Currently Defined Discovery. For this evaluation, select Blank Discovery.
5. Select Continue.
6. In the Identity window, enter a name for this Discovery Method. For this evaluation enter IP Broadcast Test.
7. Configure the Schedule box for when you want this discovery to run. For this evaluation select Never. You can run the discovery later from the Discovery window.



8. There are two methods to identify the subnet to scan. You may either use Specify Subnet or Choose Subnet from IP Subnet Scan. If CWW has already performed an IP Easy Discovery, the Subnets box should be populated. Select a subnet in the box and click Add. The subnet now appears in the Current Subnets box. Then select Save.
9. Alternately, if an IP address in the Subnet is known, you may select Specify Subnet and enter the address in the New IP Address in Subnet box. The default Subnet Mask is 255.255.255.0. Select Add and then Save.
10. The IP Broadcast Discovery is saved and CWW opens the Discovery window. The new IP Broadcast Test discovery method show in the Discoveries window.
11. To run this Discovery, check the checkbox next to IP Broadcast Test and then select Run Discovery Now in the Actions window.

IP Sweep
IP Address ranges are swept for devices. This is the most reliable method of finding devices. To configure and evaluate the IP Sweep, utilize the same procedure as for IP Broadcast.

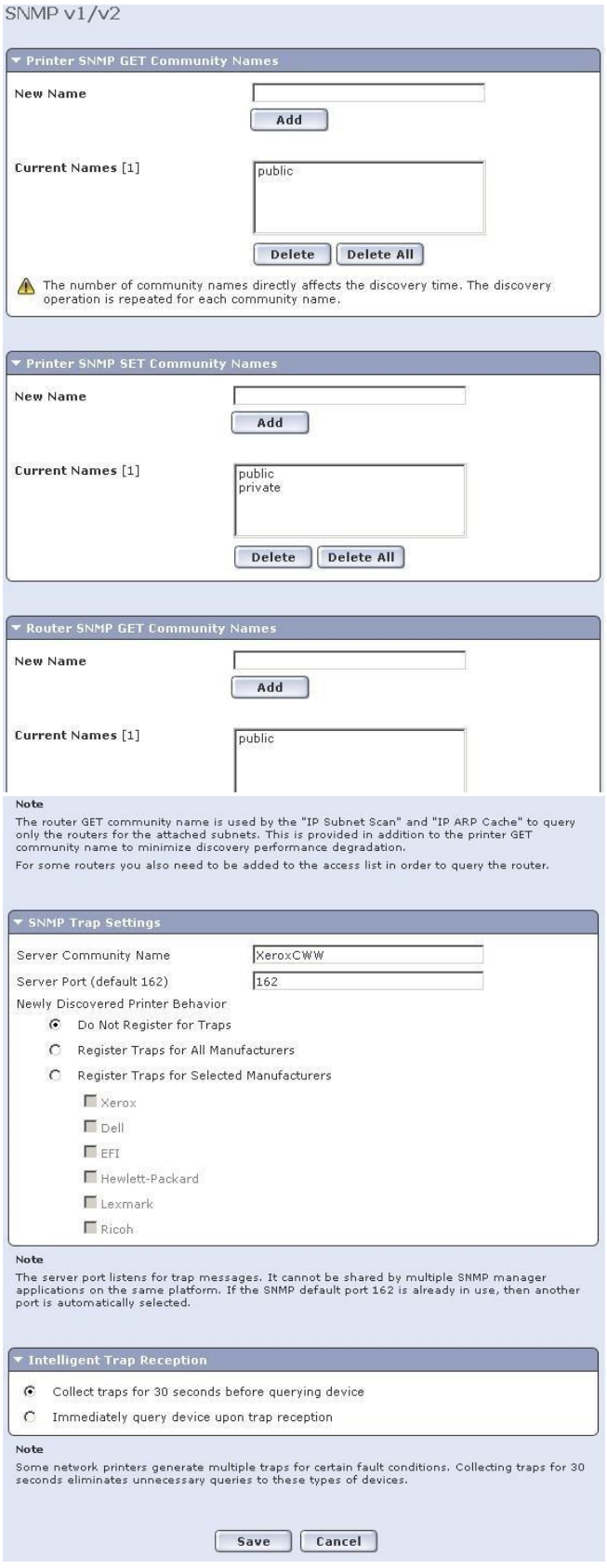
IP Subnet Scan
The list of subnets is obtained from the routers for configuration of IP Broadcast and IP Sweep methods. As with IP Sweep, IP Subnet Scan is configured and evaluated using essentially the same method as IP Broadcast. In IP Subnet Scan, you can select the number of hops that Discovery performs to limit the range of Discovery, or you may enable Discovery to discover all subnets up to the firewall.

SNMP V1/V2

The SNMP v1/v2 page allows management of the SNMP SET, GET and TRAP community names.

If the printers on the customer's intranet have set their SNMP access community name strings to that other than "public" for getting SNMP information and "private" for setting SNMP information, then CWW needs to have the name strings to be used to "unlock" the important MIB information stored within the network devices. This can be performed within the "SNMP v1/v2" web pages within the Discovery configuration section of CWW.

1. To add a community name, enter a New Name and then click Add.
2. To remove a community name, select an item in the Current Name sub window and click Remove.
3. Make the appropriate settings above and save the changes by selecting the Save button, or exit without making changes by selecting the Cancel button.


SNMP v1/v2
Printer SNMP GET Community Names
New Name
Add
Current Names [1]
public
Delete
Delete All
The number of community names directly affects the discovery time. The discovery operation is repeated for each community name.
Printer SNMP SET Community Names
New Name
Add
Current Names [1]
public
private
Delete
Delete All
Router SNMP GET Community Names
New Name
Add
Current Names [1]
public
Note
The router GET community name is used by the "IP Subnet Scan" and "IP ARP Cache" to query only the routers for the attached subnets. This is provided in addition to the printer GET community name to minimize discovery performance degradation.
For some routers you also need to be added to the access list in order to query the router.
SNMP Trap Settings
Server Community Name
XeroxCWW
Server Port (default 162)
162
Newly Discovered Printer Behavior
Do Not Register for Traps
Register Traps for All Manufacturers
Register Traps for Selected Manufacturers
Xerox
Dell
EFI
Hewlett-Packard
Lexmark
Ricoh
Note
The server port listens for trap messages. It cannot be shared by multiple SNMP manager applications on the same platform. If the SNMP default port 162 is already in use, then another port is automatically selected.
Intelligent Trap Reception
Collect traps for 30 seconds before querying device
Immediately query device upon trap reception
Note
Some network printers generate multiple traps for certain fault conditions. Collecting traps for 30 seconds eliminates unnecessary queries to these types of devices.
Save
Cancel

SET AND GET COMMUNITY NAMES

The SNMP page enables the evaluator to specify options for how CWW operates when using the SNMP network protocol. The SNMP GET Community Names option specifies what SNMP community names to use when retrieving information from printers via SNMP. The SNMP SET Community Names option specifies what SNMP community names to use when sending information to printers via SNMP. The number of community names affects the time to complete a Discovery as the operation is repeated for each community name.

To demonstrate this function:

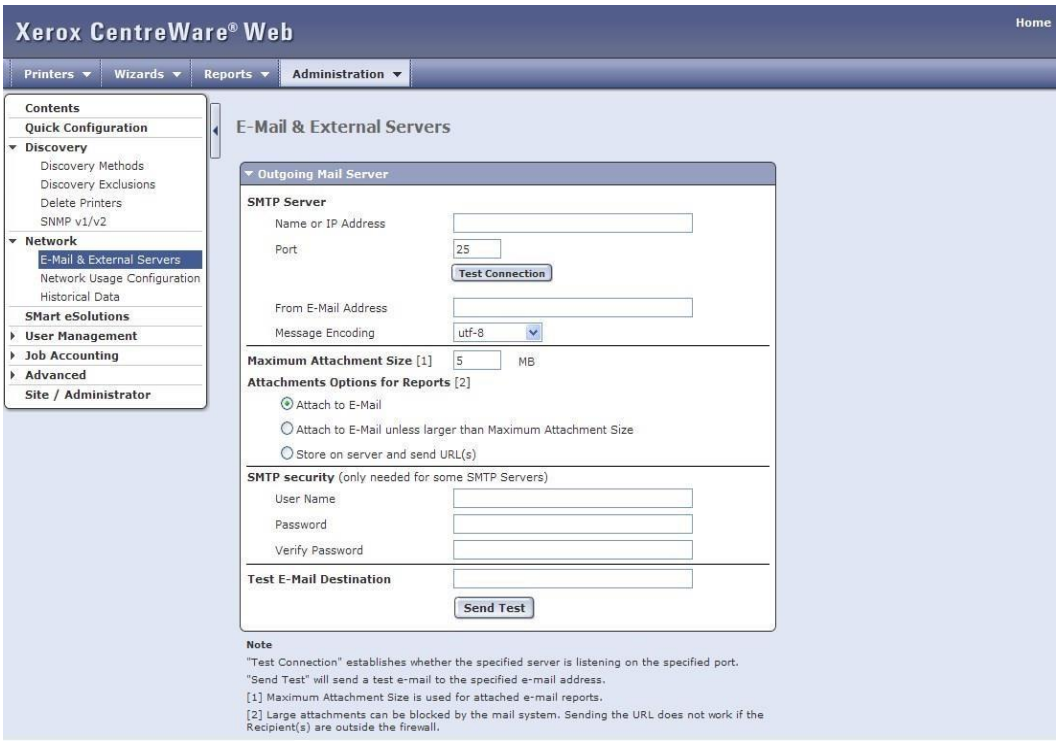
If prior tests of CWW have retrieved print device data, the SNMP GET Community string was set correctly. To demonstrate the need for having the GET community string match the devices GET community string, perform the following steps:

1. Clear the database by selecting Administration > Discovery > All Printers (in the Manually Clear Database) > Clear Database now.
2. Go to Administration > Discovery > SNMP v1/v2.
3. Note the current GET community name, and then remove the current GET Community Name. Enter a name which is guaranteed to not be used by any devices (eg, day-of-the-week and date as Tuesday12)
4. Run a discovery with the new GET community name.
5. No devices should be discovered.
6. To continue testing, return to Administration > Discovery > SNMP v1/v2, and reset the GET community string to its original value.

If prior tests of CWW have not retrieved print device data, and the SNMP Get Community string was not set correctly, then you have confirmed the second part of the test above.

1. Go to Administration > Discovery > SNMP v1/v2.
2. CWW is configured to utilize the default GET string for SNMP v1 and v2. This GET-string community name is public. Confirm that this name has been configured for GET Community name.
3. Confirm that there is network connectivity between the CWW server and the printers being examined:
4. Ping the target print devices from the CWW server. This should succeed with no errors.
5. Set the GET community string to what is required in your environment.
6. Run a discovery with the new GET community name.
7. Devices should be discovered.

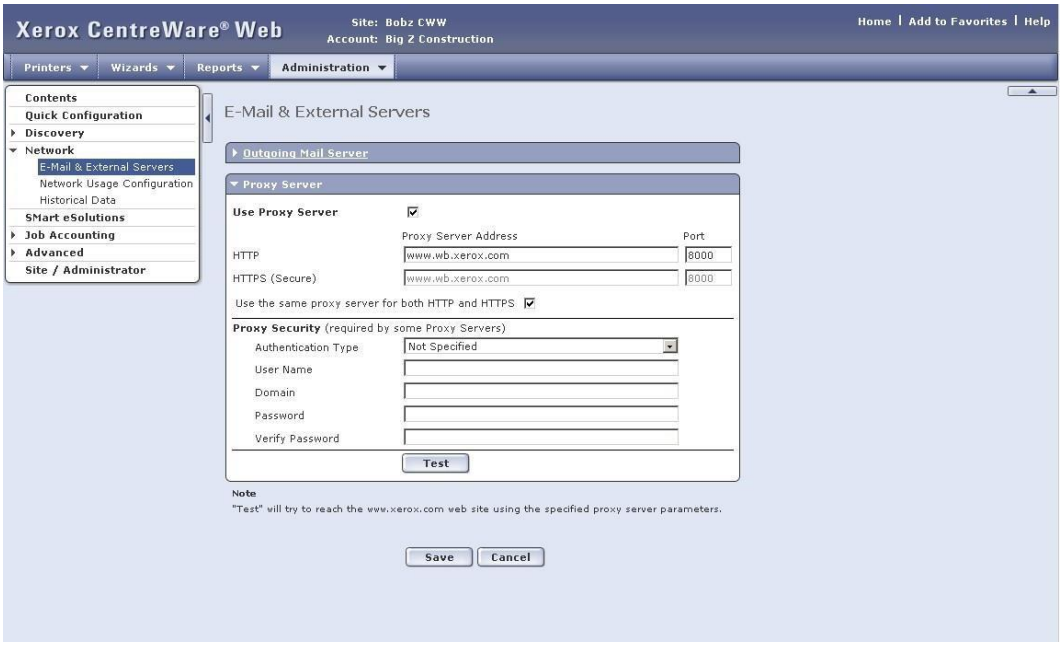
Configure E-mail and External Servers



The Mail Server option specifies which Simple Mail Transport Protocol (SMTP) mail server to use when reports are E-mailed from CWW, and the E-mail address to use as the sender of reports. The Mail Server option also allows the evaluator to specify which Message Encoding standard is supported e.g., UTF-8, etc.

To configure the Outgoing Mail Server:

1. Enter the Server Name or IP address and Port Number for the SMTP Server.
2. Verify connectivity by selecting the Test Connection button.
3. Enter the From E-Mail Address.
4. Select the desired message encoding from the pull-down box if different from the default value of utf-8.
5. Determine and enter the maximum allowable attachment size in MegaBytes and enter it in the Maximum Attachment Size textbox.
6. Select the desired Attachment Options for Reports:
   a. Attach to E-Mail: Reports are attached to an E-Mail message in the conventional manner.
   b. Attach to E-Mail unless larger than Maximum Attachment Size: Performs the same as Attach to EMail unless the report size exceeds the threshold set in the Maximum Attachment Size textbox.
   c. Store on server and send URL(s): Reports are stored on the server and an E-Mail message is sent containing URL links to the reports.
7. If required by your SMTP server, enter User Name and Password in the SMTP Security boxes.
8. Test the configuration by selecting the Test button.
9. Upon successful test completion, select the Save button.



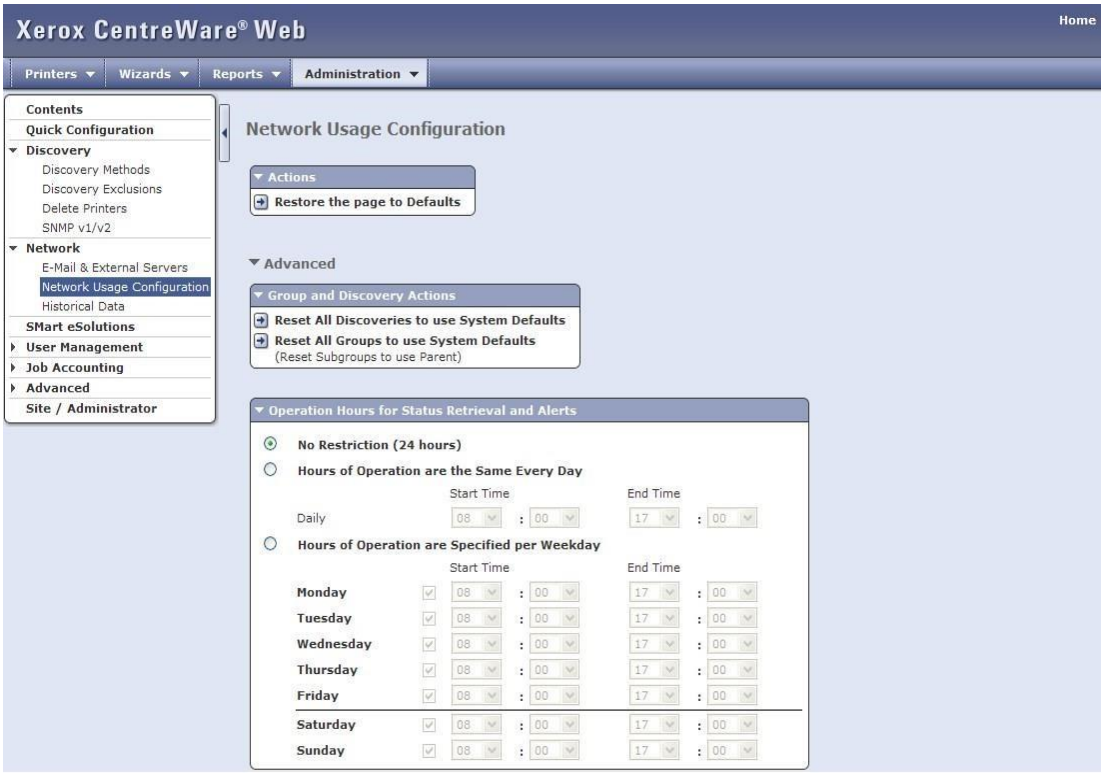
The Proxy Server settings are required if the evaluator intends to use the Auto Driver Download or the Smart eSolutions feature and the evaluator network uses a proxy server for Internet access. For convenience purposes, CWW attempts to determine the proxy settings from the evaluator browser (Internet Explorer®) during the CWW installation process. If the proxy settings can be determined, they are used to automatically populate the Proxy Server Name and Proxy Server Port fields.

If the proxy settings cannot be determined by CWW:

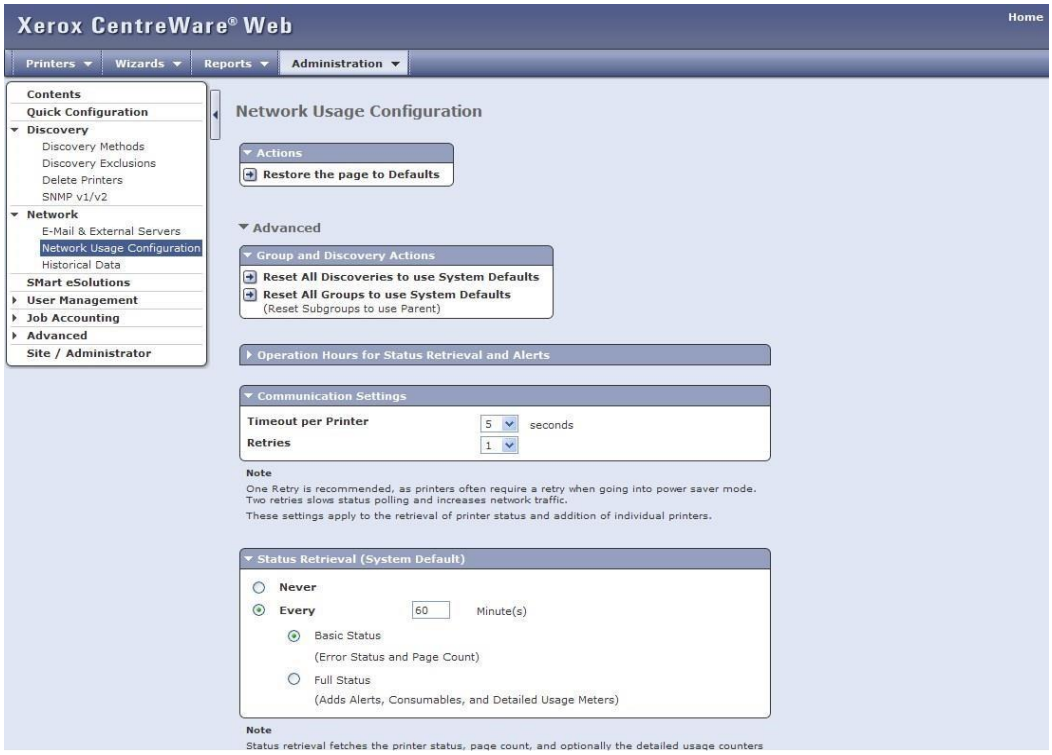
1. Select the Use Proxy Server checkbox.
2. Manually enter the Proxy Server Address, Proxy Server Port and Proxy Security information in the appropriate textboxes. To enter separate HTTP and HTTPS proxy server addresses, uncheck the Use the same proxy server for both HTTP and HTTPS checkbox. To use the same proxy server for both HTTP and HTTPS, make sure the Use the same proxy server for both HTTP and HTTPS checkbox is checked and enter the proxy server address and port number in the HTTP textboxes. The HTTPS textboxes automatically populate.
3. Select Test.
4. Upon successful test completion, select Save.

Setup Network Usage Configuration

The Network Usage Configuration page enables the evaluator to set configuration options for CWW that specify how the application works on the evaluator network.



- The Restore page to defaults is self-explanatory.
- Group and Discovery Actions provide an easy to use method of resetting Discovery and Group setting parameters that have been previously configured.
- Operational Hours for Status Retrieval can be used to restrict when status retrieval occurs to only certain hours for the entire week, e.g., between 8:00PM and 1:00AM or to certain times for specific weekdays, e.g., Monday between 8:00AM and 12:00 PM, Tuesday 1:00PM and 6:00PM, or to No Restriction.



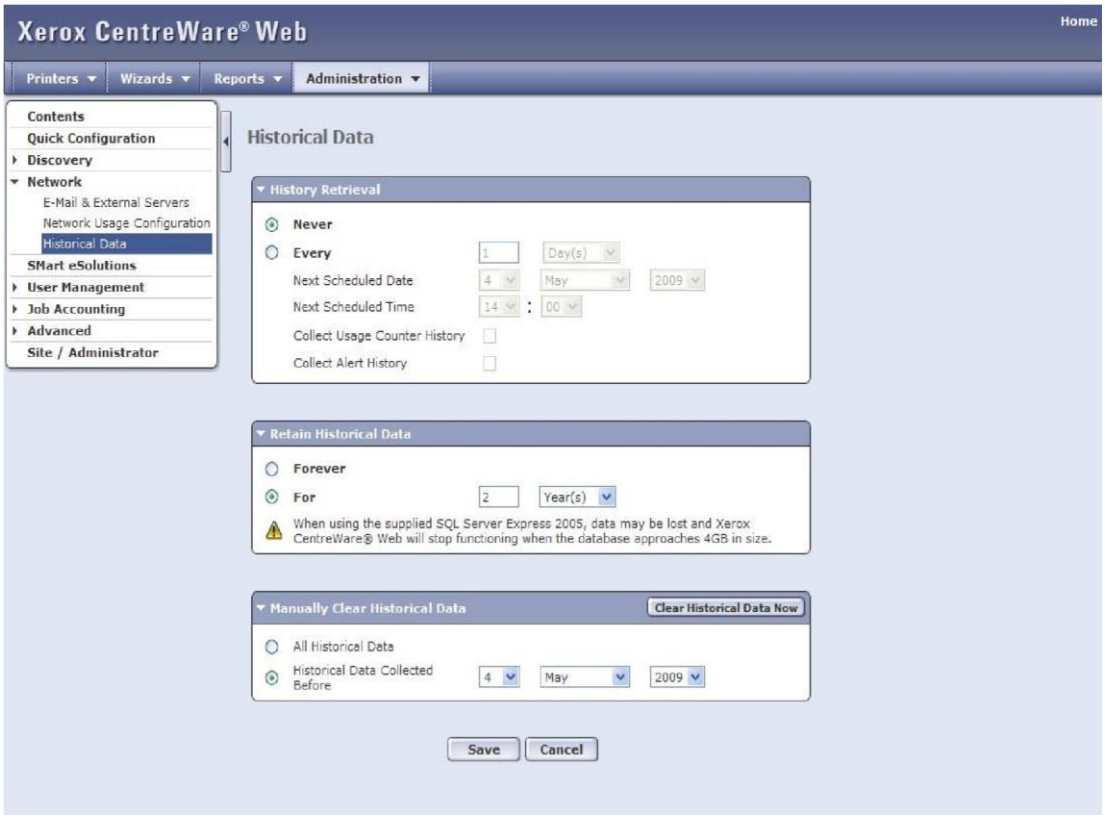
- The Communication Settings defines the timeout and retries parameters for Status Retrieval and addition of printers operations.
- Status Retrieval determines if, how often, and how much status is retrieved from printers.

Xerox CentreWare® Web
Home
Printers
Wizards
Reports
Administration
Contents
Quick Configuration
Discovery
Network
E-Mail & External Servers
Network Usage Configuration
Historical Data
SMart eSolutions
User Management
Job Accounting
Advanced
Site / Administrator
Reset All Groups to use System Defaults
(Reset Subgroups to use Parent)
Operation Hours for Status Retrieval and Alerts
Communication Settings
Timeout per Printer
5
seconds
Retries
1
Note
One Retry is recommended, as printers often require a retry when going into power saver mode.
Two retries slows status polling and increases network traffic.
These settings apply to the retrieval of printer status and addition of individual printers.
Status Retrieval (System Default)
Manufacturer Applicability
All Network Printers and All Queue Connected Printers
Only Xerox Network Printers and All Queue Connected Printers
Note
This option applies to scheduled discovery and does not apply to printers added manually or
when a managed print server or managed active directory is added.
DNS Names
Lookup DNS Names of discovered devices.
Note
Enables reverse DNS name lookup after discovery, which causes additional network traffic.
When available, the DNS names will be used for printer management when performing HTTP
network requests. For environments that block HTTP requests to IP addresses, this feature

- Manufacturer applicability provides the ability to restrict the discovery operations to Xerox only printers if desired.
- DNS names provide the ability to associate the DNS name to the printer(s) under management when applicable. This option should be used if the application is to use DNS names instead of IP addresses when communicating with printers via the HTTP protocol.
- Make the appropriate settings above and save the evaluator changes by selecting the Save button, or exit without making changes by selecting the Cancel button.

Setup Historical Data information

Historical data gathering must be enabled to obtain full use of the page Count History and Alert History reports. Specific information can be gathered at a specified time and for selected groups of printers.



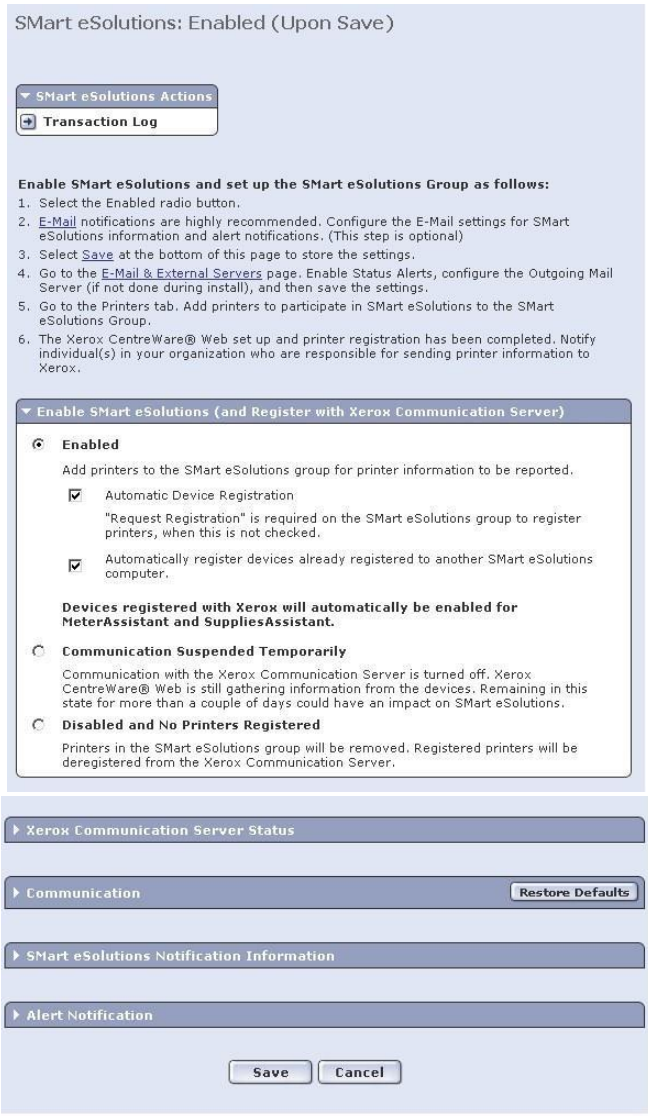
The History Retrieval option specifies if and when historical data gathering is to occur. To enable data collection:

1. Select the Every radio button.
2. Set the retrieval interval and the start date and time using the Next Scheduled Date and Next Scheduled Time settings.
3. Select the Collect page Count History and Collect Alert History radio buttons to enable the collection of this data so that it can be reported upon. page count data needs to be enabled for the page Count History report and the Alerts data needs to be enabled for the Alert History report.
4. Use the Retain Historical Data window to specify how long the historical data should be retained.

5. Historical Data stored within the CWW database can also be manually cleared by selecting the evaluator desired date range and clicking on the Clear Historical Data Now button.
6. Make the appropriate settings above and save the evaluator changes by selecting the Save button, or exit without making changes by selecting the Cancel button.

Setup for SMart eSolutions

The SMart eSolutions must be enabled by the CWW User from Administration > Smart eSolutions. There are a couple of steps the users must complete in order to enable SMart eSolutions. Once these steps are completed the SMart eSolutions are presented as a new group within the Printer file menu tree.


SMart eSolutions: Enabled (Upon Save)
SMart eSolutions Actions
Transaction Log
Enable SMart eSolutions and set up the SMart eSolutions Group as follows:
1. Select the Enabled radio button.
2. E-Mail notifications are highly recommended. Configure the E-Mail settings for SMart eSolutions information and alert notifications. (This step is optional)
3. Select Save at the bottom of this page to store the settings.
4. Go to the E-Mail & External Servers page. Enable Status Alerts, configure the Outgoing Mail Server (if not done during install), and then save the settings.
5. Go to the Printers tab. Add printers to participate in SMart eSolutions to the SMart eSolutions Group.
6. The Xerox CentreWare® Web set up and printer registration has been completed. Notify individual(s) in your organization who are responsible for sending printer information to Xerox.
Enable SMart eSolutions (and Register with Xerox Communication Server)
Enabled
Add printers to the SMart eSolutions group for printer information to be reported.
Automatic Device Registration
"Request Registration" is required on the SMart eSolutions group to register printers, when this is not checked.
Automatically register devices already registered to another SMart eSolutions computer.
Devices registered with Xerox will automatically be enabled for MeterAssistant and SuppliesAssistant.
Communication Suspended Temporarily
Communication with the Xerox Communication Server is turned off. Xerox CentreWare® Web is still gathering information from the devices. Remaining in this state for more than a couple of days could have an impact on SMart eSolutions.
Disabled and No Printers Registered
Printers in the SMart eSolutions group will be removed. Registered printers will be deregistered from the Xerox Communication Server.
Xerox Communication Server Status
Communication
Restore Defaults
SMart eSolutions Notification Information
Alert Notification
Save
Cancel

SMart eSolutions Actions

RESTORE SMART ESOLUTIONS GROUP – STATUS

Registered printers are restored to this group if the application becomes corrupt, is uninstalled or a printer is removed or deleted from the group and is added prior to next communication with Xerox Communication Server.

TRANSACTION LOG SETUP

1. Action, Clear Log.
2. Select the Clear Log link to launch a window with clear log options.
3. Discard non data export radio button for transactions older than 2 years. Date range is 1-99 days, weeks, months, years.
4. Discard Transactions older than with a date range of 1-99 days, weeks, months, years.
5. Discard all non data export transactions.
6. Discard All Transactions.

The Transaction log captures SMart eSolutions events. These events can be sorted in the following categories:

- All – will display all the events for SMart eSolutions
- Device Register – occurs when a device is registered with the Xerox Communication Server for the SMart eSolutions service
- Server Register – identifies a server that has been registered
- Xerox Server Communication – verifies a communication register with the Xerox Server

Note: Transaction Log is a log view of SMart eSolutions events. The only Actions associated with this field are to sort by different categories or to clear the log. At initial setup when SMart eSolutions is first enabled there are no log files to clear.

Smart eSolutions feature Setup:

1. Check the Enabled radio button located within pull down box Enable SMart eSolutions and Register with Xerox Communication Server.
2. Check the Automatic Device Registration option, if unchecked. The user Requests Registration for each printer device at the SMart eSolutions group configuration Printer page.
   a. Selecting Communication Suspended Temporarily can be used if user needs to take a printer offline.

b. Disabled and No Printers Registered: If this radio button is checked then SMart eSolutions feature is disabled and does not appear in Printer group file menu tree.

3. Select the e-mail link to configure the SMart eSolutions Information window. The user can configure the e-mail notification when registration requests are made and transmitted.
4. Recipient(s) can be added or deleted. A total of 3 e-mail addresses can be added in the recipient list.
5. Go to the E-Mail & External Servers page. Enable Status Alerts, configure the Outgoing Mail Server if not done during install, proxy server settings and then save the settings. If a proxy server is used then the proxy must be configured in order to cross the firewall to Xerox Communication Server.
6. Alert Notifications can be setup to alert a recipient via e-mail for the following SMart eSolutions events:
   a. Failure to Communicate with Xerox Communication Server. Date range equals 1-30 days.
   b. Failure to Read Data from Device for a date range that equals 1-30 days.
   c. Devices Deleted from SMart eSolutions Group

Note: These three Alerts are checked by default when SMart eSolutions is enabled.

7. Select Save at the bottom of SMart eSolutions Administration page.

8. Upon saving this page SMart eSolutions attempts to register with the Xerox Communication Server. If successful, a status of Registered and Passed is displayed in the Xerox Communication Server Status Window on SMart eSolutions.
9. SMart eSolutions is now Setup and is available in the Printer menu file as the group SMart eSolutions.

Job Accounting

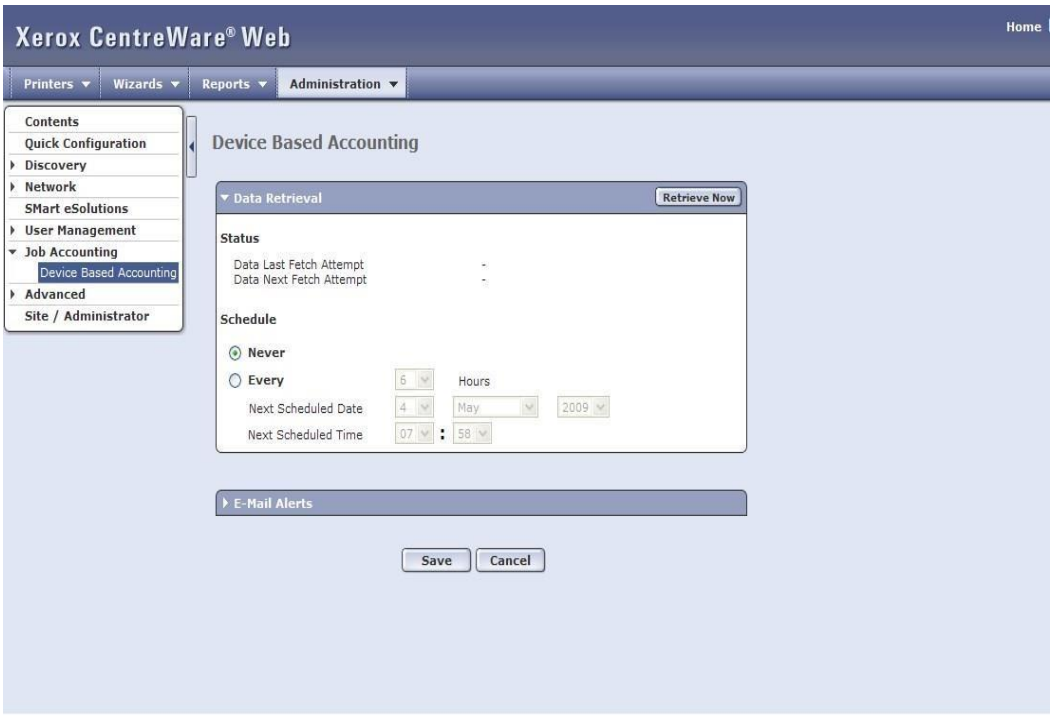
CentreWare® Web supports Device Based Accounting on some Xerox devices that provide this capability. Three windows are provided within CWW to configure this function. The Device Based Accounting Data Retrieval window is used to set the data retrieval schedule and to check the retrieval status. The Chargeback Codes and Customers (End Users) windows are used to manage the billing and define the approved users.

It is important to note that the Users must be defined before configuring Job Accounting through the Job Accounting Configuration Set.

DEVICE BASED ACCOUNTING DATA RETRIEVAL

Configure the data retrieval schedule using this window. Data retrieval may be disabled, scheduled on a repeating basis or retrieved upon demand.

1. Open the Device Based Accounting Data Retrieval window by selecting: Administration > Job Accounting > Device Based Accounting.
2. To schedule data retrieval, select the Every radio button. Using the pull-down menus, set the desired retrieval period, Next Scheduled Date and Next Scheduled Time.
3. Select Save. CWW is now configured to retrieve the data on a periodic basis.
4. To immediately retrieve the job accounting data, select the Retrieve Now button at the top of the frame.

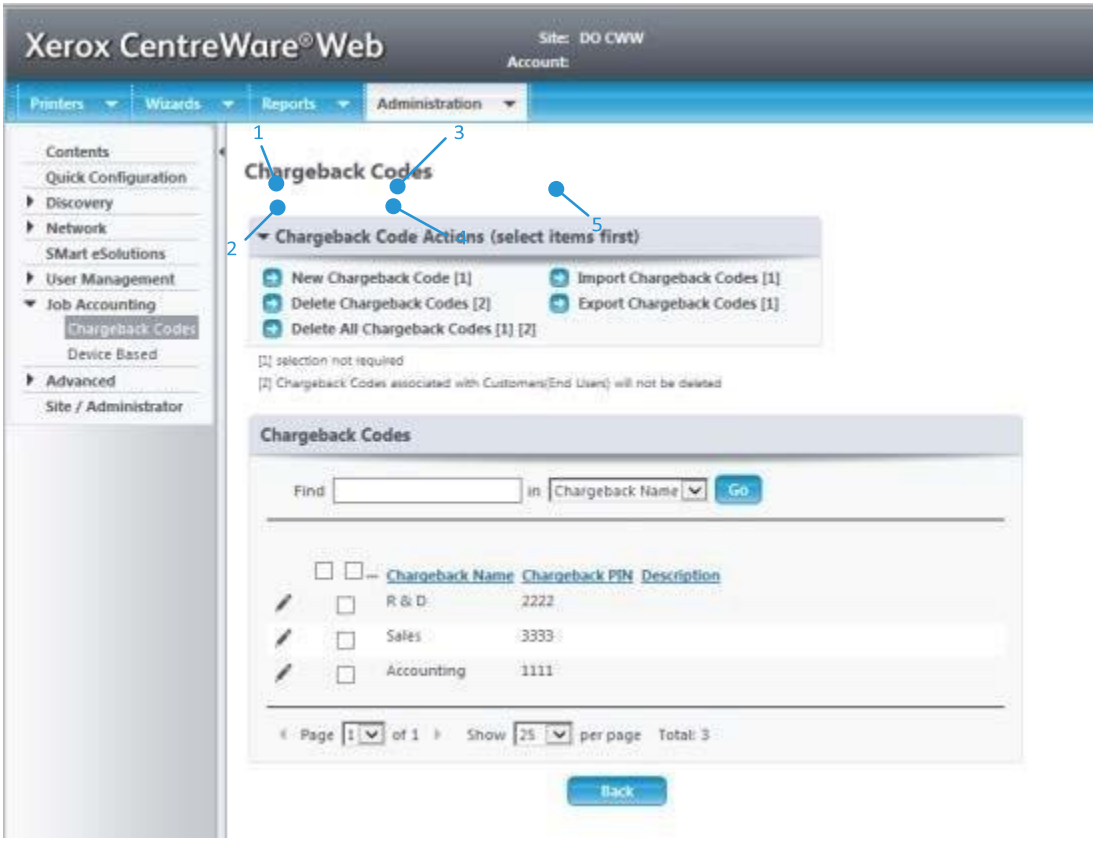


CUSTOMERS AND CHARGEBACK CODES

The list of approved users and their associated chargeback codes is sent to printers for print job validation. A customer (end user) can be assigned to multiple chargeback codes.

CHARGEBACK CODES

Chargeback codes are created and maintained under Job Accounting > Chargeback Codes. Once the chargeback codes are created, they are assigned to customers under User Management > Customers (End Users). Refer to the Customers section below.



CREATING A NEW CHARGEBACK CODE

Chargeback codes can be entered singly or imported from a CSV file. To enter codes one at a time:

1. Select Administration > Job Accounting > Chargeback Codes.
2. Select New Chargeback Code. The New Chargeback Code page displays.
3. Enter a chargeback name and PIN. Enter a description if desired. Press Save.

To import chargeback codes from a CSV file:

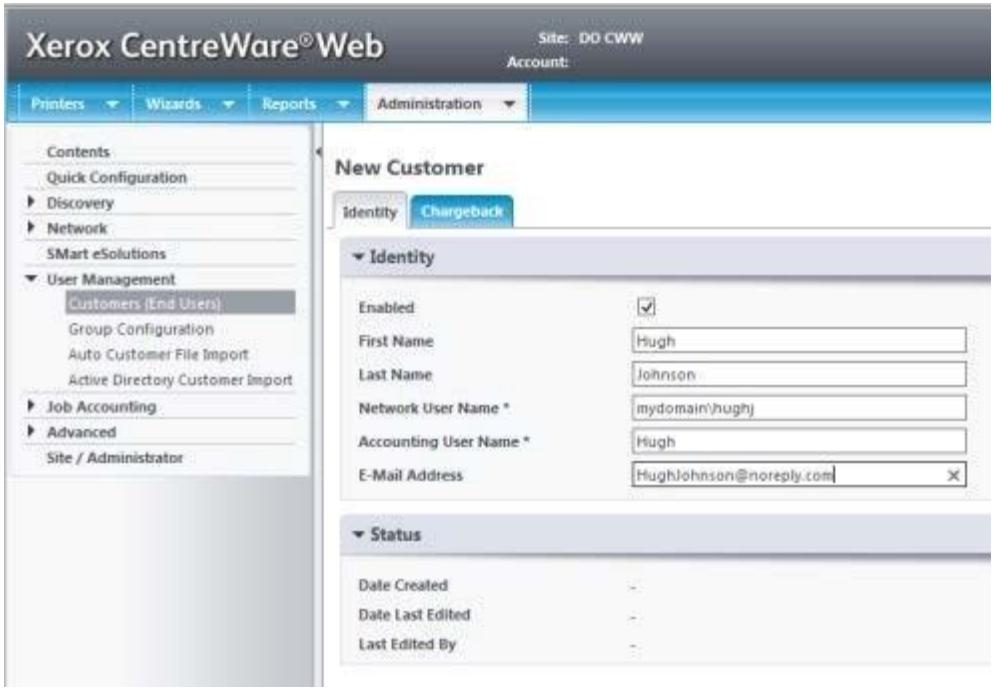
1. Select Administration > Job Accounting > Chargeback Codes.
2. Select Import Chargeback Codes.
3. Check Create new Chargeback codes.
4. Browse and select the CSV file to import. The Export Template button downloads a template file with the proper format.

5. Press the Import button.

CREATING A NEW CUSTOMER (END USER)

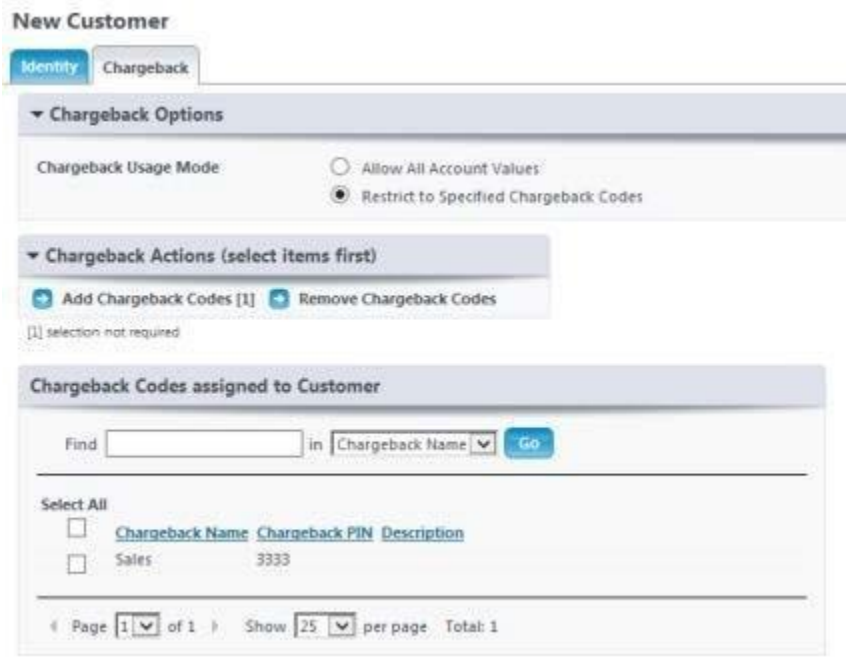
Customers must be created or imported in order to associate them with chargeback codes and evaluate the Job Accounting function. To create a customer:

1. Select Administration > User Management > Customers (End Users).
2. Select New Customer under Customer Actions. The New Customer page displays.



3. The Enabled checkbox is selected by default. Leave this checked.
4. Enter the First and Last Name.

5. Enter the Network User Name. Include the domain name if there are multiple domains on the network. The format is <domain_name>\<user_name>.
6. Enter the Accounting User Name. This is used to log in at the device and must be unique.
7. Enter the E-Mail Address if desired.
8. Select the Chargeback Code tab.



9. For the Chargeback Usage Mode, select Restrict to Specified Chargeback Codes.
   a. Allow All Account Values – allows the customer to use any chargeback code that has been defined.
   b. Restrict to Specified Chargeback Codes – allows the customer to use only those chargeback codes that have been associated to the customer.
10. Select Add Chargeback Codes under Chargeback Code Actions. The Add Chargeback Codes page displays. Select the chargeback codes to associate to this customer and press the Add button.
11. Back on the New Customer page, select the Save button. The main Customers page displays and the customer just added can be found on the list.

DELETING A CUSTOMER

To delete one or more users:

1. Select Administration > User Management > Customers (End Users).
2. Check the checkbox next to the name or names to be removed.
3. In the Customer Actions box, click on Delete Customers.

IMPORTING AND EXPORTING CUSTOMERS

To import a list of customers from a CSV format file:

1. Select Administration > User Management > Customers (End Users).
2. In the Customer Actions box, select Import Customers.
3. Click on Export Template and open file when prompted by the browser. Refer to this file to properly format the file for import.

4. Enter the file name or click the Browse button to locate the file.
5. Select checkboxes for Create New Customers and Update Existing Customers.
6. Change the Chargeback Code separator strings if needed.
7. To verify the file is properly formatted, click Validate File.
8. Click Import.

To automatically import a list of customers from a CSV format file:

1. Select Administration > User Management > Auto Customer File Import
2. Click on Test Path to verify read/write access to the import folder.
3. Place the customer file to import in the import folder.
4. Set Enable Scheduled Import to Every and set the schedule date and time.
5. Change the Chargeback Code separator strings if needed.
6. Click Save.
7. At the next scheduled time, the file placed into the import folder will be imported.

To import customers from the Active Directory Users:

1. Select Administration > User Management > Active Directory Customer Import
2. Under the Active Directories/Containers section, select the domain from the Available Directories list and click Open.
3. Under the Available Containers section, select Selected Containers radio button, select the checkbox for the Users container and click Add.
4. To import chargeback codes that are associated to each user, set the Chargeback Mode to Restrict to Specified Chargeback Codes and select the Active Directory field in which they are stored from the Chargeback Codes & Pins dropdown.
5. Under the Import Options, click Import Now.
6. The users from Active Directory are imported into the customer list using the Field Mapping as described

To export a partial list of users from CWW to a CSV format file:

1. Select Administration > User Management > Customers (End Users).
2. Check the checkbox next to the user or users to be exported to the file.
3. Select Export Customers in the Customer Actions box.
4. In the Export Customers window, select the Selected Customers radio button.
5. Click the Download button to save the file.

To export a complete list of users from CWW to a CSV format file:

1. Select Administration > User Management > Customers (End Users).
2. Select Export Customers in the Customer Actions box.
3. In the Export Customers window, select the All Customers radio button.
4. Click the Download button to save the file.

E-MAIL ALERTS ON FAILURE TO RETRIEVE JOB ACCOUNTING DATA

CWW provides an alerting feature to warn users in the event that it fails to retrieve job accounting data from a printer. This service can be used to alert one or more responsible individuals that there is a potential problem with a device or its configuration.

To configure the e-mail alerting function:

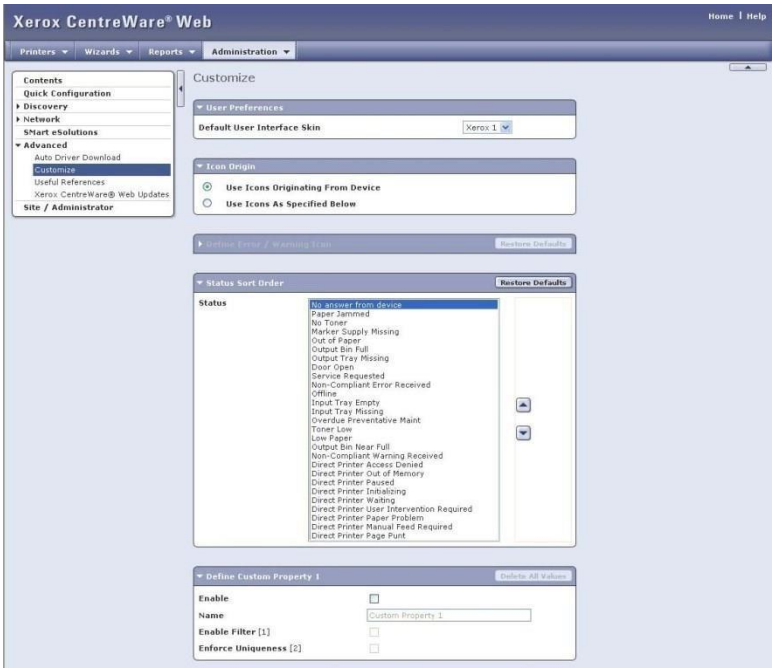
1. Select Administration > Job Accounting > Device Based Accounting.
2. In the E-mail Alerts box, enter the e-mail address of the recipient in the New Recipient text box.
3. Click Add to add this name to the list of recipients.
4. Repeat steps 2 and 3 for each additional recipient.
5. When complete, click Save at the bottom of the window.

Advanced

This setup menu within Administration provides the user with the ability to configure, view and use other applications with CWW.

CUSTOMIZE

CWW enables the Administrator to change the icons, status order, special printer features and auto specify up to five custom fields (properties) for each printer. Each custom field includes its name and value associated with it. Some of the custom properties that can be changed are how Alerts are flagged, Error and Warnings (using icons to view) and status sorting.



SETUP CUSTOM PROPERTIES

To set-up Custom Properties:

Select Administration > Advanced > Preferences and Properties.

User Interface Customization
This function allows the user to select the color scheme and appearance of CentreWare® Web on their browser. Select the option in the drop-down menu that is most pleasing to you.

Detailed Device Page
This function selects when to retrieve status data from a device. Select either radio button:

- Retrieve Status for a Device every time you enter the Device status page – Updates the status data each and every time you enter the device's status page. This is the most up to date information.
- Retrieve Status only if the last status attempt is older than XXX minutes – Updates the status data only if it is older than the selected value. Use the pull-down to select a value between 1 and 60 minutes.

Specialized Printer Features
This function enables/disables Cloning, Upgrade, and Auto Driver Download.

Icon Origin
This feature enables you to select the origin of the icons associated with printer status and error messages. There are two options for the Icon Origin:

- Use Icons Originating From Device
- Use Icons As Specified Below

Select the desired radio button. If Use Icons As Specified Below is selected, the Define Error / Warning Icon window automatically expands.

Define Error/Warning Icon
If Use Icons As Specified Below was selected in Icon Origin, use this window to select the desired icon to be displayed for each of the error/warning. Printer Status alerts can be defined as OK, Warning or Error using the Define Error / Warning settings.

Status Sort Order
This feature allows you to sort the order in which status information is displayed for reporting purposes.

- To reset to default order, select Restore Defaults.
- To customize the default order, select the desired Status and use the up and down arrows to rearrange the reporting order.

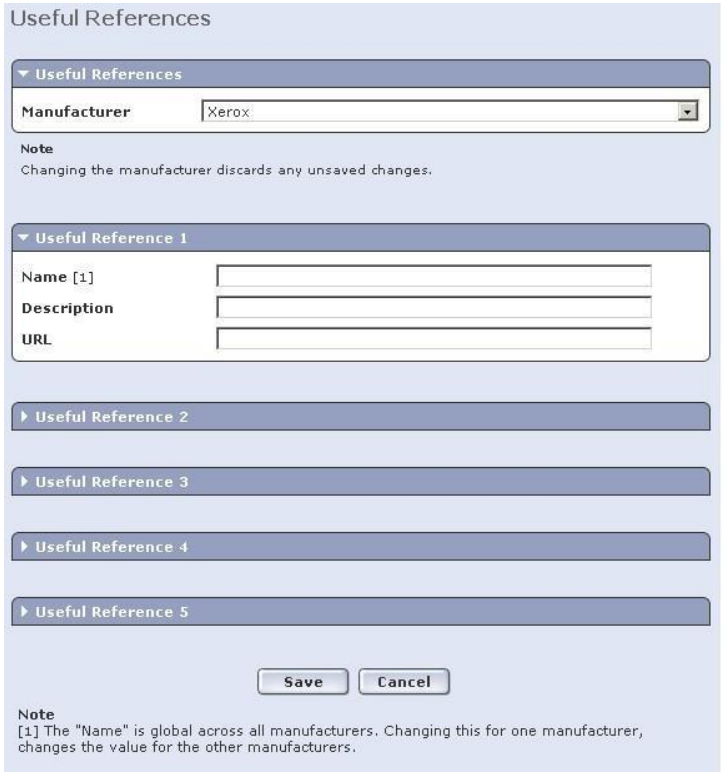
Define Custom Properties
This feature allows you to create up to 5 custom properties to assign to printers. To Define Custom Properties:

1. Select the Enable checkbox in one of the Define Custom Property windows.
2. Enter a Name for your new custom property.
3. Checking the Enable Filter box allows drop list filter selections to appear on the Printers Tab. Enabling the Filter provides the ability to choose an option from the Custom Properties drop-down list, which filters the information in this column. If the property values are unique for each printer, the filter should not be enabled. Check the Enforce Uniqueness box if the evaluator wants to insure that only unique values are entered in this field. Enforce Uniqueness makes sure that the property values are different for each printer.
4. Make the appropriate settings above and save the evaluator changes by selecting the Save button, or exit without making changes by selecting Cancel.

Note: As an example, the evaluator may want to enable Enforce Uniqueness if the custom field is defined as an Asset number for the printer, and to assure that one and only one asset number can be assigned to a printer.

SETUP USEFUL REFERENCES

The Useful References feature is a convenient way to provide additional information about printer devices specific to a particular manufacturer. Up to five references, which consist of a device manufacturer and Web site, can be defined. The links to these resources appear on Printer Properties pages and include information such as contact, technical support, and/or consumable information. Once configured, this information is displayed on the detailed properties page of the printer device.



1. Select the Manufacturer for which the evaluator would like to specify a reference by highlighting the manufacturer's name within the Useful References pull-down box.
2. In each of the (5) sub windows populate the Name, Description, and URL for each printer.
3. Click Save or to exit without making changes, click Cancel.

To Validate the Useful Reference Setup:

1. Select Xerox as Manufacturer (or use any known printer Manufacturer).
2. Populate Useful Reference 1 with a Name/ Description/ URL and click Save.
3. Go to Printers Menu and select a printer.

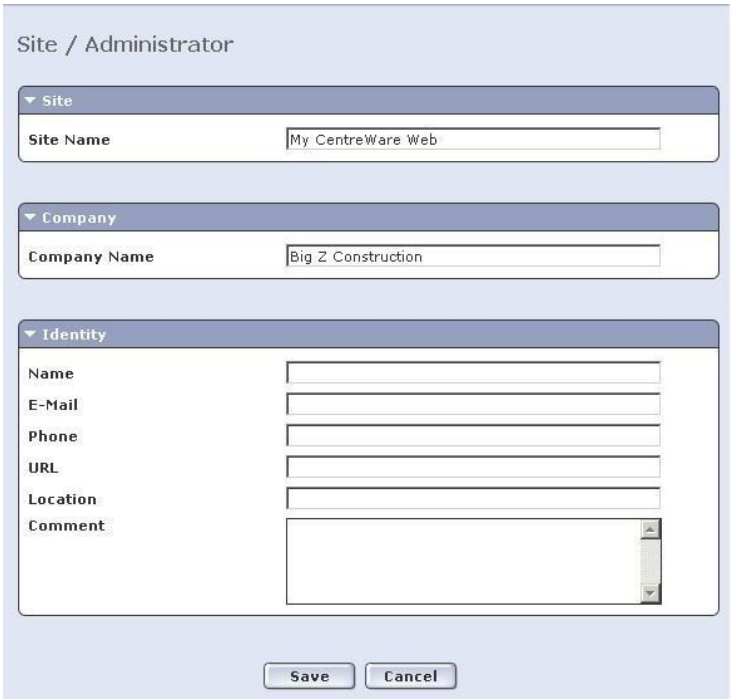
4. View the Printers Properties page - Useful References is at the bottom with the information that was populated from Administration > Advanced > Useful References.

XEROX® CENTREWARE® WEB UPDATES

This is a web link to the Xerox® CenterWare® Web website. Simply click on Xerox® CenterWare® Web Updates and a new browser window opens where you can download the latest version of CenterWare® Web.

SETUP ADMINISTRATOR INFORMATION

The Administrator page enables the evaluator to enter system administrator or support contact information for this CWW installation. The information is then available to all users from the Home page.



Configuring the Site and Administrator Properties:

Use the Administrator setup information fields to identify this server to users:

1. The Site Name information is displayed on the CWW home page.
2. Identity information entered here is displayed in a window on the CWW home page.
3. Make the appropriate settings above.
4. To save the evaluator changes click Save or to exit without making changes, click Cancel.

Administration Setup Section Summary

After completing the steps in this section the evaluator should have an understanding of the following aspects of the CWW Administrator Setup features:

- Gain an appreciation of the ease of setting up and changing the Administrative settings for CWW.
- Be able to set up and schedule historical data collection.
- Define and set up custom data fields for use in the evaluator environment.

- Specify network settings to enable E-mail reporting.
- Setup SMart eSolutions to support automatic supplies replenishing and meter assistant functionality.

17. Configuring SMart eSolutions

SMart eSolutions Overview

SMart eSolutions eliminates the need for the end user to provide manual meter reads for devices supported by Xerox Service agreement. A SMart eSolutions Group appears within the printer's tree view once enabled. Printers should be added to this group after being signed up for the MeterAssistant™ and SuppliesAssistant™ services.

A three step process to fully enable a device for SMart eSolutions service is:

- Enable SMart eSolutions via Administration>SMart eSolutions
- Register devices with Xerox Communication Server
- Sign up Printers (devices) for the Xerox Service (this step may not be able to be evaluated- see note below)

Note: The last step requires interaction with the client's Billing or Accounting department. They may have a list of all the printers currently signed up for the Xerox Service agreement, MeterAssistant™ and SuppliesAssistant™, or the user can utilize the http://www.xerox.com/SMarteSolutions#_blank (this is a link accessible on Printers > Group > SMart eSolutions setup).

Once all the above registration and service setups have been established, SMart eSolutions is available as a feature of CWW. When enabled, the Xerox Communication Server is polled for messages once a day, as long as there is at least one printer in the SMart eSolutions group. Meter and supply usage information are compiled and sent to the Xerox Communications Server. The server performs basic authentication and then forwards this information to the appropriate service. Refer to the Administration Section for additional SMart eSolutions setup information.

- SMart eSolutions Group (1) option is available after the feature is enabled within Administration menu.
- Printer Actions window (2) allows the user to make specific changes to printers (such as troubleshooting, traps, add, delete, copying…) These actions are specific to printers (NOT groups).
- Group Actions (3) allows user to configure groups or status alerts for a specific group (in this instance SMart eSolutions) these are global settings for All the printers within the group.
- SMart eSolutions Request for Registration (4) provides a mechanism for registration requests to the Xerox Communication Server. This needs to occur before information can be submitted via the Xerox Web site (SMart eSolutions Portal).

Note: The Request for Registration ONLY needs to be selected if Automatic Device Registration was not checked when SMart eSolutions was enabled. There is also a comment (5) indicating that all the printers are enabled for SMart eSolutions with a link to the SMart eSolutions Portal page (Xerox website) where printers can be signed up for the service.

Table Preferences (6) allows user to setup fields to be presented in the Queue view. New for SMart eSolutions are the following fields:

- SMart eSolutions Group Member- indicates with yes or no if printer is member of the SMart eSolutions Group
- SMart eSolutions Registration Status- provides registration status on a printer. Possible registration status results are:
  - Already Registered Directly or with Another Server
  - Registered, No Services Enabled - indicates the printer is registered with Xerox, however no service for SMart eSolutions has been activated.
  - Rejected - Xerox sends back a reject for registration, this could be due to Failure code=Wrong serial Number format DNS.

- Registered, Services Enabled - Indicates printer is registered with Xerox and the printer is setup for Service. This is the ideal status for the SMart eSolutions to work – (ASR/AMR)
- SuppliesAssistant Sent - provides a date/time when SMart eSolutions initiated the automatic supplies replenishment request. A time and date populates in the table when SuppliesAssistant request has been sent to Xerox.
- MeterAssistant Sent date (total impressions) - provides date/time when meter reads were sent to the Xerox Communications Server for printers registered for the MeterAssistant service. A time and date is populated when meter reads for a particular device are sent to Xerox.

Note: SMart eSolutions only supports Xerox printers and only provides automatic replenishment of toner supplies. Non-Xerox printers are not added to the Smart eSolutions Group and an e-mail notification is not sent noting that the printer was not added. CWW does not allow the evaluator to create subgroups under the built-in groups (i.e. SMart eSolutions). Subgroups are created using the New Group function.

Request for Registration

During the setup of some of the parameters of SMart eSolutions the user is given an option to check Automatic Device Registration. Prior to evaluating the Request for Registration feature available within the Printers SMart eSolutions Request for Registration uncheck this option in the Administration > SMart eSolutions.

To evaluate Request for Registration, perform the following:

1. Display the SMart eSolutions group by selecting it in the Printers Folder navigation window.
2. Select (x) a printer from the SMart eSolutions Queue view.
3. Click Request for Registration for the selected printer.
4. The Request Registration window appears with a warning: Are you sure you want to register the following printers with the Xerox Communication Server? User either confirms or cancels.
5. Select Confirm and this operation is conducted in the background.
6. Verify the SMart eSolutions window reappears with Printer registration is in progress at the top of page.
7. An e-mail is automatically sent to a recipient defined during the enable SMart eSolutions routine with the registration status.
8. Refresh SMart eSolutions window and verify the selected printer appears within queue as a member of the SMart eSolutions Group Member and identifies the SMart eSolutions Registration Status.

Table Preferences

To evaluate Table Preferences, perform the following:

1. Display the SMart eSolutions group by selecting SMart eSolutions group in the Printers Folder navigation window.
2. Click on the Table Preferences to edit Field Queues and View. The Table Preferences for Printers and Queues is launched.
3. Automatic Refresh can be edited between 1 and 99 minutes, or leave at default setting of every 5 minutes. For this evaluation change it to two minutes.
4. Paging Toolbar can be set to either top or bottom of toolbar- select either Bottom or Top and verify change after Save is selected.
5. Table Scrollbars allows the user to change the size (w/h in pixels) of the table. Default is 600x400 pixels.

6. Display Fields has 105 fields that could be displayed in the table. These fields can be used to filter the list of printers. Select a few from the list on the left include the new SMart eSolutions Group Member, MeterAssistant Sent Date (total impressions) and SuppliesAssistant Sent Date.
7. Rearrange the order of the fields by using the up and down arrows located on the right side of the Included Fields.
8. Click Save to save the settings.
9. SMart eSolutions window is re-launched; evaluate the table for the changes which were made in the Table Preferences page.

Note: Table Preferences provides the user control over how the printer information is displayed for the SMart eSolutions group. Having the ability to exclude some fields from the view provides easy review of the data.

By default, when SMart eSolutions is enabled, the following fields will always be populated in the table view for the SMart eSolutions Group:

- MeterAssistant Sent Date (total impressions)
- SuppliesAssistant Sent Date
- SMart eSolutions Registration Status

Printer Actions for SMart eSolutions Group

The Printer Actions window for SMart eSolutions should include the actions:

- Add to Group,
- Remove from Group
- Copy to Group

The Group Actions Window includes Configuration and Status Alerts.

Note: Only Add to Group, Remove from Group, and Copy to Groups are listed for further evaluation in this section. Install, Troubleshoot, Modify Traps and Apply Configuration/Check Compliance do not impact the New SMart eSolutions Group feature. They are identified for evaluation in previous sections.

Add to Group

The Add to Group feature applies only to Custom groups since printer populations for all default groups are predefined. This feature is similar to the Copy to Group feature described below. As noted previously in Group Evaluation, the Copy to Group and Add to Group functions differ primarily in that the printer list displayed using Copy to Group includes all of the printers in the source group whereas the Add to Group function lists only those printers not already assigned to the target group (SMart eSolutions).

To evaluate Add to Group, perform the following.

1. Display the SMart eSolutions group by selecting SMart eSolutions group in the Printers Folder navigation window.
2. Click Add to Group in the Printer Actions window, observing on the Add to Group page that only those printers not already assigned to the SMart eSolutions group are being displayed.

Note: The Table Preferences can be configured to include the field SMart eSolutions Group Member. The SMart eSolutions Group Member field identifies with yes or no if the printer is a member of the group.

3. Select one or more printers and click Add.
4. Redisplay the SMart eSolutions group and verify that the specified printers have been added to the SMart eSolutions group.

Note: Adding new printers to the SMart eSolutions Group also prompt an e-mail to be sent to a pre-defined recipients e-mail. The e-mail notifies the recipient of the registration status for the device. The e-mail notification is configured when the SMart eSolutions is enabled.

Remove from Group

Remove from Group removes the selected printers from the group (SMart eSolutions group.) Removing printers from the SMart eSolutions group not only removes them from the Group, but also deregisters with the Xerox Communication Server. The printers remain in the CWW database as well as any other groups to which those printers were assigned.

To evaluate Remove from Group, perform the following.

1. Display the SMart eSolutions group by selecting SMart eSolutions group in the Printers Folder navigation window.
2. Select a printer to be removed by checking its box in the Queue view.
3. Select Remove from Group from within the Printers Actions window
4. A window displays a warning message: Are you sure you want to remove the selected printers from the group? Action is required either to confirm or cancel.
5. Click Confirm.
6. Redisplay the SMart eSolutions group (this is automatic) and verify that the selected printer has been removed from the group.
7. Verify an e-mail has been received from CWW that a printer has been removed specifically from SMart eSolutions group. The e-mail should include serial number and IP address of printer.
8. Redisplay the All Printer group and verify that the selected printer is still a member of that group and it no longer indicates yes as a SMart eSolutions Group Member.

Copy to Group

Use the Copy to Group function to add printers from SMart eSolutions to new custom groups that the evaluator created. This feature, along with Create New Group enables the evaluator arrange printers in a way that best suits the environment. After creating a custom group, printers can be added to that group by selecting printers from another group or by using the Find function to locate printers to copy.

To evaluate this feature, perform the following:

1. Display the SMart eSolutions group by selecting the SMart eSolutions group in the Printers Folder navigation window.
2. Select one or more printers either by checking the individual check boxes or by checking the Select All box.
3. After selecting one or more printers, select the Copy to Groups button within the Printer Actions window.
4. At this point, the Copy to Group page is displayed. This page displays a selection list of all custom groups (For example, Test Group 1). By specifying a group and then clicking the Save button, the printers selected in the previous step are copied to the specified custom group.

CWW also provides the ability to create a new custom group from within the Copy to Groups feature for enhanced convenience and usability. This feature allows the evaluator to easily create a new group and copy a selection of printers to the newly created group all on one page.

Group Actions

Note: Group Actions Window Configuration and Status Alerts are common actions for all the groups and printers. There are limited changes made within these fields. Group Actions are evaluated with SMart eSolutions to identify some of the minor differences associated with the SMart eSolutions group.

To evaluate SMart eSolutions Group Configuration, perform the following:

1. Display the SMart eSolutions group by selecting the SMart eSolutions group in the Printers Folder navigation window.
2. Select Configuration in Group Actions window.
3. Verify Properties field is presented. The window includes Identify information, Communications Settings, Status Retrieval and Membership Filter.
4. The Identify field may not be populated, select the Configure link to further populate this field and click Save.
5. Redisplaying the Properties field shows all the fields populated in the Identify Field.
6. Communication Settings timeouts after 20 seconds and 2 retries.
7. Status Retrieval is conducted in regular intervals of 120 minutes.

To evaluate SMart eSolutions Group Status Alerts, perform the following:

Printer Status Alerts: SMart eSolutions
Printer Status Alert Profiles
New Profile
No Status Alert Profiles defined. Press the "New Profile" button to create a profile.
Note
On the Network Usage Configuration page, alerts must be enabled and the SMTP settings configured on the E-Mail & External Servers page before the alerts can be sent.
Back

1. Display the SMart eSolutions group by selecting the SMart eSolutions group in the Printers Folder navigation window.
2. Select the Status Alerts to open the Alerts window.
3. An error message window may display indicating no Status Alerts are defined with a Note message.
4. The Identify field may not be populated completed, select the Configure link to further populate this field and Save.
5. Redisplaying the Properties field shows all the fields populated in the Identify Field.